THE *BRITISH LEGACY:* OR, FOUNTAIN of KNOWLEDGE.

CONTAINING,

(Among upwards of Two Hundred other Curious Particulars, of the utmoſt Service to Families in General)

The *Horſe Deſected:* Being the moſt accurate and ſatisfactory Account of the Diſeaſes incident to that noble Beaſt, ever yet publiſh'd; with their Signs, Symptoms, Prognoſticks and Cures in all Caſes; a certain Cure for the GLANDERS, *without Trepanning*; a never-failing Cure for the *Greaſe*; and another for *Broken-winded* Horſes: Wrote by Way of DIALOGUE between a Horſe-Doctor and a Groom, by JAMES MACDONALD, M. D.

The beſt Manner of Breaking a Colt; of ordering a Horſe of Pleaſure; and ample Directions for the Management of a Race-Horſe.

Certain Method of *preventing Chimneys from Smoaking*, let their Form or Situation be what they will; with a Print, the better to enable thoſe *concerned in Building* to prevent theſe great Inconveniencies for the future.

The valuable *Fire-Ball*; by the Uſe of which, Families may make four or five Buſhels of Coals go as far as forty.

An excellent Way to bring *Singing-Birds* to a very great Perfection, by that famous *German Lewis de Burgh.*

Extraordinary Method of Breeding *Game-Cocks*; the Manner of Dieting and Ordering them for Battle; ſure Way of *Matching* them: With a choice and valuable *Secret* for Feeding a Cock four Days before fighting, communicated by a noble Lord; by which very extraordinary Way of Feeding upwards of Ninety Battles have been won out of a Hundred.

Indian Way of marking on Silk, Linnen, Woollen, *&c.*

Curious Method of *Caſting Urine*, and how *Diſorders are known by it.*

The Art of *Curling*, *Dreſſing*, and *Colouring Hair.*

Sir *Hans Sloane*'s valuable Cure for *Diſorders of the Eyes.*

Certain Method of preventing the *Teeth* from being *uneven*, or *bad*, by Sig. *Curzoni*, Operator of the Teeth and Gums.

Monſ. *Rouille*'s Lip-Salve.

The *Tea-Tree*, and Manner of growing it in *England.*

Inſtructions for *mounting Fans.*

Manner of making *Elixir of Life*, *Friar's Balſam*, &c.

With the *Gardener*'s *Legacy*; containing all the Inſtructions neceſſary for the Cultivation of the Fruit, Flower, and Kitchen-Garden. By *Edward Knight.*

Illuſtrated with ſeveral Prints, many of which are in the Chineſe *Taſte.*

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TO THE READER.

THE Gentleman, the Scholar, the Mechanick, and, in a Word, every Member of Society, are ſo deeply intereſted in the Improvement of *Arts* and *Sciences*, that this *Britiſh Legacy* will ever be held in univerſal Eſteem. For this Reaſon it will be unneceſſary to purſue the faſhionable Method of giving a pompous *Bill of Fare* by Way of Preface; ſince our Treat will be found ſo ſubſtantial as to need no Encomium.

Beſides upward of Two Hundred Miſcellaneous Articles, of great, nay ineſtimable Value, the Reader will here meet with the moſt uſeful Treatiſe on *Farriery* ever publiſhed; written by the late Doctor *Macdonald*, whoſe Eminence and Veracity are well known; and in which is contained a *certain Cure for the Glanders, without that cruel and hazardous Operation of Trepanning*,

ning, which has been prov'd equally ridiculous and unſucceſsful. As alſo a regular Syſtem of *Practical Gardening*, by Mr. *Edward Knight*; to which is prefix'd ſeveral elegant Deſigns for *Chineſe* Paling, a *Chineſe* Summer-Houſe, Bridge, *&c.* accurately engraved by M. JAQUES LE STERE, and of great Uſe to Joiners and Carpenters, as this Kind of Building and Paling is in high Eſteem for its Beauty and Elegance.

But we ſhall refer our Reader to the Work itſelf, without detaining him any longer, where he cannot fail of meeting with the utmoſt Satisfaction; ſince mentioning of every valuable Particular, would be a Recapitulation of the Whole.

☞ The Reader is deſir'd to make the following Addition to the Valuable Fire-Ball, an Account of which is inſerted in p. 104. To the Ton of Clay, and Quantity of Coals there mention'd, you are to add four or five Hundred Weight of wet Cow-dung; and, whatever Size you make the Balls, don't forget to make a Hole, or Holes, quite thro' each, with a Stick near an Inch in Diameter; which not only cauſes them to dry ſoon, but makes them burn very pleaſantly.

THE

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THE

HORSE DESECTED.

BEING

An Accurate Account of the Diſeaſes incident to that Noble and Uſeful Beaſt:

With their Signs, Symptoms, Prognoſticks and Cures in all Caſes; their Beginning, Progreſs, and fatal Periods, when neglected, or unſkilfully managed: Illuſtrated with ſeveral choice Remedies, never before made publick; and a certain Cure for the the Glanders, without trepanning.

Wrote by Way of Dialogue between a Horſe-Doctor and a Groom,

By JAMES MACDONALD, *M. D.*

Doctor.

AS my chief Deſign is to inform you of the ſeveral Diſorders incident to Horſes, together with the moſt ſafe, eaſy and effectual Cures, I ſhall take up but little of your Time in expatiating on their Uſe, *&c.* we being every Day convinced of the great Service they are of to Mankind, not only in their various Labours, but as they concern both Health and Pleaſure. If you are not ſufficiently acquainted with the Structure of this noble Creature, it will not be improper to give a Deſcrip-

Deſcription of it, as it will be preparatory to your better underſtanding what I hereafter treat of.

Groom. I ſhall be glad to have an Account of it from a Perſon of your Judgment.

Doct. As the Parts of a Horſe's Body furniſh a great Variety of Terms, you are to obſerve, the Hair and Skin are call'd the Coat; the long Hair on the Neck, the Mane; the Fore-top, the Toping, or Tuke; the Hair behind, on the Feet, the Fetlock, or Fetter-lock; that growing over the Top of the Hoof, the Coronet, or Cronet; that on the Eye-lids, the Brill — The Ridge whereon the Mane grows, is called the Creſt, or Criſt; the Fore-part, from the Neck to the Fore-legs, the Briſket, or Cheſt; the Mark frequently running down his Face, the Rache; and that in the Forehead, the Star — The Top of the Shoulder-blades, at the ſetting on of the Neck, is call'd the Withers; the Place where the Saddle is ſet, the Back; and a Bruiſe, or Hurt thereon, a Naval-gall; the Middle of the Back, from the Mane to the Hip, the Reins; the Extremity of the Reins above the Hips, the Croupe; the Tail, the Dock, or Runt; the Hollow, or Sinking of the Back-bone, the Sway; the hind Part of the Belly, next the Genital, the Flank; that nearer the Thighs, the Groin; the looſe Skin wherein the Yard is, the Sheath; and the fore Parts of the Shoulders, next the Breaſts, the Filiets — The uppermoſt Part of the hind Leg, next the Buttock, is called the Stifle, or Stifle-joint; the After-joint, or Bending of the Hind-leg, the Cambrel, or Elbow; the inner, the Ham, or Hough; the Joint at the Fetlock, the Paſtern, Ancle, or Fetlock-joint; the Foot, above the Hoof of the Ancle-joint, the Coronet — The Part from the Withers to the Top-joint of the Fore-leg, is called the Shoulder; the Middle-joint of the Fore-leg, the Knee; the Right-leg before,

before, the Off-leg; and the Left, the Near — The Hoof is called the Horn; the Hollow of the Hoof, the Coffin; the tender Part of the Hoof, next the Heel, the Frush; the Ball of the Foot, the Frog; the Part to be pared or cut off the Hoof, when over-grown, the Rift; the Fore-part of the Hoof, the Toes; the Hind-part, where there is a Rising in the Middle of the Sole, the Heel; and the Insides, meeting on the Heel, the Quarters.

Gr. How should a Horse be form'd, to be accounted compleat, and well made?

Doct. A Horse, to be good, and well made, must have three Parts like those of a Woman, viz. the Breast, which is to be broad, the Hips round, and the Neck long; three of a Lion, viz. Countenance, Intrepidity, and Fire; three of a Bullock, the Eye, Nostril, and Joint; three of a Sheep, the Nose, Gentleness, and Patience; three of a Mule, Strength, Constancy, and Foot; three of a Deer, Head, Leg, and Hair short; three of a Wolf, Throat, Neck, and Hearing; three of a Fox, Ear, Tail, and Trot; three of a Serpent, Memory, Sight, and Turning; three of a Hare, or Cat, Running, Walking, and Suppleness.

Gr. How are the different Kinds of Horses distinguished?

Doct. They are differently denominated, with Regard to their Strain or Country: The Neapolitan is known by his Hawk-nose; the Spanish Genet, by his small Limbs; the Barb, by his fine Head, and deep Hoof; the Dutch, by the Roughness of his Legs; the English, by his strong knitting together. Horses are also distinguished with Regard to the Uses or Offices they are reserved for; as the Running-horse, Hunting-horse, War-horse, Road-horse, Coach-horse, Cart-horse, Pack-horse, &c.

Gr.

Gr. How are their Colours diſtinguiſh'd?

Doct. With Regard to their Colours, the Bay admits of divers Shades, or Caſts, viz. a Black-bay, Brown-bay, Dapple-bay; all which have conſtantly black Manes and Tails. Dun and Mouſe-dun, having frequently a black Liſt along the Back, which denominates them Flea-backed. Flea-bitten, which is White, ſpotted with Red. Grey, Dapple-grey, Silver-grey, Sad, or Powder'd-grey, Black-grey, Sandy-grey, and Iron-grey. Griſſel, or Rount, a light Roſin-colour, intermix'd with White. Peach-colour, or Bloſſom-colour. Pyebald, which conſiſts of two Colours, one of them White. Roan, a Bay, Black, or Sorrel, intermixed with white Hair. Rubican, Black, or Sorrel, with white Hairs ſcatter'd about his Body. Sorrel, common Sorrel, Red, or Cow-colour'd Sorrel, bright, or light-colour'd Sorrel, burnt Sorrel; all chiefly diſtinguiſh'd by the Colour of their Manes. Starling-colour, reſembling a browniſh or blackiſh Grey, only more freckled, or intermix'd with White. Tyger-colour, much the ſame with the Brindle-grey, only the Spots ſmaller. Wolf-colour. Deer-colour. Black. White.

Gr. Which Sort are moſt valued for their Colour?

Doct. It is hard to lay down any univerſal Rules. The White, which promiſe leaſt, often prove good, when black about the Eyes and Noſtrils. There are alſo extraordinary good Iron-greys, tho' not reputed a valuable Colour. The Dapple-grey is priz'd for Beauty; the Brown-bay for Service; the Black, with Silver-hair, for Courage; the Roan for Countenance; the Sorrel, Black without White, and Iron-grey, are reputed hot and fiery; the Bright-grey, Flea-bitten, and Black with white Spots, are ſanguine; the White, Dun, and Pye-ball, phlegmatic and heavy; the Mouſe-dun, Red-bay, and Blue-grey, are dull; the

Peach-

Peach-colour rarely prove obedient to the Spur; the Sorrel ſeldom fail of being good (if not ſpoil'd in Breaking) eſpecially if their Legs, Tails, and Manes be black; the ſame may be ſaid of the Flea-bitten; at leaſt, thoſe ſo mark'd in the Fore-parts, or over the whole Body; but, when only behind, it is an ill Sign.

Gr. How is the Age of a Horſe known?

Doct. The firſt Year he has his Foal's Teeth, which are only Grinders and Gatherers; *the ſecond*, the four foremoſt change, and appear browner and bigger than the reſt; *the third*, he changes the Teeth next to theſe, leaving no apparent Foal's Teeth, but two on each Side above, and two below; *the fourth Year*, the Teeth next to theſe are chang'd, and no Foal's Teeth are left, but one on each Side above and below; *at five Years*, his foremoſt Teeth are all changed, and the Tuſhes on each Side are compleat; thoſe which come in the Places of the laſt Foal's Teeth, being hollow, and having a little black Speck in the Midſt; and this is called *The Mark in a Horſe's Mouth*, which continues till eight Years of Age. *At ſix Years*, he puts up new Tuſhes; near which appears a little Circle of young Fleſh, at the Bottom of the Tuſh; the Tuſhes withal being white, ſmall, ſhort, and ſharp. *At ſeven Years*, the Teeth are all at their full Growth, and the *Mark in the Mouth* appears very plain. *At Eight*, all his Teeth are full, ſmooth, and plain, and the Mark ſcarce diſcernable; the Tuſhes looking yellowiſh. *At Nine*, the foremoſt Teeth ſhew longer, yellower, and fouler than before; and the Tuſhes become bluntiſh. *At Ten*, no Holes are felt on the Inſide of the Upper-tuſhes; which, till then, are very ſenſible; add to this, that the Temples begin to be crooked and hollow. *At Eleven*, his Teeth are very long, yellow, black, and foul;

foul; but he will cut even, and his Teeth ſtand directly oppoſite to one another. *At Twelve*, the Upper-teeth hang over the nether. *At Thirteen*, the Tuſhes are worn cloſe to his Chaps, if he have been much ridden; otherwiſe, they will be black, foul, and long.

Gr. Are theſe the only Means of forming a Judgment of the Age of a Horſe?

Doct. No; there are other Ways of knowing whether a Horſe be young or old: For Inſtance; if the Hoof be ſmooth, moiſt, hollow, and well-ſounding, it is a Sign of Youth; on the contrary, if rugged, and as it were ſeamed, one Seam over another, and withal dry, foul, and ruſty, it is a Sign of old Age. Again, take a Horſe by the Stern of his Tail, cloſe at the ſetting on to the Buttock, and griping it between the Finger and Thumb, if a Joint be found to ſtick out more than the reſt, the Bigneſs of a Nut, the Horſe is under Ten; but, if the Joints are all even, he may be fifteen. The Eyes being round, full, and ſtaring; the Pits that are over them filled, ſmooth, and nearly even with their Temples, and no Wrinkles to be ſeen, either under, or above, this is a ſure Mark of Youth. The Skin being pluck'd up in any Part betwixt the Finger and Thumb, and let go again; if it return ſuddenly to its Place, and remain without Wrinkles, it looks like Youth. A dark-colour'd Horſe, growing griſly about the Eye-brows, or under the Mane; or a whitiſh Horſe growing meanelled, either white or black, all over, may be infallibly concluded extremely aged. Laſtly, a Horſe being young, the Bars of his Mouth are ſoft and ſhallow; otherwiſe, they are deep, and feel hard and rough.

Gr. What are the Diſeaſes Horſes are incident to?

Doct.

Doct. They are ſubject to a great Number of Diſorders; and, as many of them take their Riſe from Colds, I will give you ſome Account of this Foundation of Ills in the firſt Place — Colds are contracted oftner from hard Riding, than any other Cauſe; eſpecially when they are afterwards neglected, and left either in the cold Air, or a cold Stable.

Gr. In what Manner does a Cold make its Appearance?

Doct. All Colds do not affect Horſes in the ſame Manner; but whenever the Noſe gleets; the Kernels about the Ears and under the Jaws ſwell; when the Horſe appears dull and heavy; the Eyes watery; when he is obſtructed in Breathing; appears feveriſh; works in his Flanks; loaths his Meat; the Mouth ſlimy; Ears and Feet cold — theſe are undeniable Signs of a Cold.

Gr. Are they, when thus diſorder'd, troubled with a Cough, as in the human Kind?

Doct. It is very common for Horſes to cough when they have taken Cold; tho' it is not always a dangerous Symptom; eſpecially when he coughs ſtrong, ſnorts, and pricks up his Ears; when he is briſk in his Motions; dungs and ſtales freely; and has a good Coat, &c.

Gr. Do you truſt the Diſorder, when theſe Symptoms appear, to be carried off by Nature?

Doct. Bleeding is recommendable, let the Symptoms be ere ſo good; you are likewiſe to keep the Horſe warm; give him Plenty of warm Water with a Handful of Oat-meal to every Pail-ful; and give Feeds of ſcalded Bran, Malt, &c.

Gr. What Quantity of Blood is neceſſary to be taken from a Horſe under theſe Circumſtances?

Doct. Little leſs than two Quarts; and, if the Diſorder continue, you are to bleed him again, but take

not ſo much in Quantity as before, three Pints being ſufficient, unleſs the Horſe be very ſtrong.

Gr. In caſe theſe Means do not carry off the Diſorder, in what Manner would you proceed then?

Doct. If the Horſe grow worſe, infuſe three Ounces of Anniſeeds, and half a Drachm of Saffron in a Quart of boiling Water; let this ſtand four Hours, then pour off as much as will run clear, add five Ounces of Honey, and four or five Spoonfuls of the beſt Sweet Oil thereto, and give this Drink, Milk-warm, every Night for a Week; and, where a Fever is ſuſpected, be ſure give two or three Ounces of Nitre for four or five Days, in his Feeds, or Water; or diſſolve three or four Ounces of Cream of Tartar in his Water every Day for a Week.

Gr. What is to be done, when the Horſe is very coſtive?

Doct. Give the following emollient Glyſter, in caſe the Cream of Tartar fails of Succeſs.

N° 1 — Maſhmallows and Camomile Flowers, of each two Ounces; ſweet Fennel-ſeeds and Bay-berries, bruiſed, one Ounce each; boil theſe in one Gallon of the Water for an Hour; when ſettled, add to the Liquid half a Pound of Treacle, and a Pint of Linſeed-oil.

Before this be adminiſtred, a ſmall Hand, well oiled, ſhould be paſſed up the Fundament, to bring away any harden'd Dung, which might otherwiſe obſtruct the Paſſage of the Glyſter. If you find this not ſufficiently laxative, you may give four Ounces of either Linitive Electuary, Cream of Tartar, or purging Salts. It may likewiſe be found neceſſary, in order to haſten the Cure, to give the following cordial Ball.

N° 2.

N° 2—Anniſeeds, Carraway-ſeeds and greater Cardamoms, finely powder'd, of each 1 Ounce; Flower of Brimſtone 2 Ounces; Turmerick, in fine Powder, 1 Ounce and a Half; Saffron 2 Drachms; Spaniſh-juice, diſſolved in Water, 2 Ounces; Liquorice-powder 1 Ounce and a Half; Wheat-flour a ſufficient Quantity to make into a ſtiff Paſte, by beating all the Ingredients well in a Mortar. The Quantity given to be the Size of a ſmall Egg, either in a Ball, or diſſolved in a Pint of warm Ale.

You may give this every other Day for a Week; but Care is to be taken that the Horſe is kept warm, and that his hot Maſhes and warm Cloathing are continued.

Gr. Is Exerciſe requir'd in this Diſorder?

Doct. If the Weather be mild, moderate Exerciſe does Service; and ſo does frequent Rubbing with Cloths, eſpecially about the Neck and Throat. When you give ſcalded Bran, let it be put hot into the Manger, as the Steam from thence greatly promotes the Running, and much forwards the Cure.

Gr. Should Hay be given, while thus diſorder'd?

Doct. Yes; but it ſhould be ſmall in Quantity, and good in Quality.

Gr. Are not Rowels of Service in Colds?

Doct. Where Horſes are fleſhy, they often do Good; and ſo does two or three gentle Purges, when the Diſorder is pretty well removed; in which Caſe I adviſe the following.

N° 3—Senna 2 Ounces; Salt of Tartar 3 Drachms; infuſe theſe in a Pint of boiling Water two or three Hours; pour off, and diſſolve in it three Ounces of Glauber Salts, and two Ounces of Cream of Tartar.

This is both eaſy and quick in its Operation; and preferable, in all inflammatory Caſes, to many other Purges, as it paſſes into the Blood, and operates alſo by Urine.

Gr. What are the Symptoms of a Fever?

Doct. Reſtleſneſs; parch'd and dry Tongue; red and inflam'd Eyes; Loſs of Appetite; high-colour'd Urine, made with Difficulty; full and hard Pulſe; and when the Horſe dungs often, and it comes from him in ſmall hard Bits, theſe are undeniable Symptoms of a Fever.

Gr. What is the proper Method of Cure?

Doct. If the Horſe be ſtrong, take two or three Quarts of Blood from him; and then give a Pint of the following Drink three or four times a Day.

N° 4 — Balm, Sage and Camomile Flowers, each one Handful; Liquorice-root, ſliced, half an Ounce; Salt Prun. or Nitre, three Ounces; infuſe in two Quarts of boiling Water; when almoſt cold, ſtrain off, and ſqueeze into it the Juice of two or three Lemons, and ſweeten with Honey.

You are to give him ſcalded Bran in ſmall Quantities; and his Diet in general ſhould be much the ſame as that given in Colds. The following is likewiſe given once a Day with good Succeſs.

N° 5—Take two Ounces of Salt of Tartar, and one Ounce of Sal Armoniac; diſſolve theſe in two Quarts of Water, and afterwards mix it with a Pail of River-water; adding a Handful of Bran or Barley-meal thereto.

If your Horſe refuſe to feed, take more Blood from him, and continue the Drinks, to which you may add two or three Drachms of Saffron. And, if his Dung

Dung be knotty and hard, continue the emollient Glyſter, N° 1. Great Service has likewiſe been done in Fevers by the following opening Drink.

N° 6—Cream of Tartar and Glauber-ſalts, of each three Ounces; diſſolve in Water-gruel, or Barley-water.

The Day this Drink is given, the Glyſter ſhould be omitted; neither ſhould the Nitre-drink be taken on the Day this is adminiſtered.

Gr. What are the Signs of Recovery in a Fever?

Doct. Reliſh to Food, and taking to lay down, are good Signs of Recovery: To forward a Cure, walk him abroad in the Air, and give Plenty of ſweet Litter to reſt him in the Stable.

Gr. Are not ſome Kind of Fevers more fatal than others?

Doct. The compound Fever is of a very irregular and dangerous Nature; and, if unſkilfully managed, often ends in Death.

Gr. What are the Symptoms in this Kind of Fever?

Doct. A ſlow Fever, with languiſhing and extreme Depreſſions; inwardly hot, and outwardly cold; Eyes moiſt and languid; Loſs of Appetite; continual Moiſture in the Mouth; Dung ſoft and moiſt, but ſeldom greaſy; his Staling is often irregular, ſometimes little, ſometimes profuſe, ſeldom high colour'd, but rather pale, with little Sediment.

Gr. What is the moſt ſucceſsful Method of Cure in this complicated Kind of Fever?

Doct. Moderate Bleeding, taking little above a Quart at one time; but this ſhould be repeated in Proportion to his Strength, Cough, or any Tendency to Inflammation. After the ſecond Bleeding the Fever Drink, N° 4, has been often given with good Succeſs; and that is much mended by adding thereto half an Ounce of Salt of Wormwood, and 2 Drachms

of Saffron and Camphire; ſcalded, or raw Bran, ſhould be given for his Feed, and Hay that is very good, and only a ſmall Handful at a time. His Drink ſhould be thin Water-gruel, ſcarce Milk-warm, with a Spoonful of Lemon-juice to every Pail-full. If you find this Treatment does not anſwer, and the Horſe grows worſe, give the following Drink.

N° 7 — Take Camphor one Drachm, diſſolve it in rectify'd Spirit of Wine; then gradually pour on a Pint of diſtill'd Vinegar warm'd, and give for two Doſes. The Quantity of Camphor may be increas'd occaſionally.

If the Horſe be coſtive, Recourſe muſt be had to Glyſters, or the opening Drink, N° 5; or, ſhould he purge, take Care not to ſuppreſs it, if moderate; but if, by Continuance, the Horſe grows weak, Diaſcordium is given with very great Succeſs. You are to take Notice, that Camphor is a very powerful and effectual Remedy in theſe Kind of Horſe Fevers; being particularly calculated to promote the Secretions of Urine and Perſpiration; it does great Service in malignant Fevers, by giving Motion to ſtagnant Humours in the moſt remote Parts, and promoting their Expulſion by the common Outlets: And Nitre has advantageouſly been join'd with it in many Caſes. During this Diſorder, Regard ſhould be had to his Staling; if it be too great in Quantity, as it often depreſſes the Spirits, it ought to be chequ'd by proper Reſtringents, or preparing his Drinks with Lime-water (ſee the Article Lime-water, p. 83) but, if it happens that he ſtales ſo little as to occaſion a Swelling of his Body and Legs, you are to adminiſter the following Drink.

N° 8 — Sal Prunella, or Nitre, one Ounce; Juniper-berries, and Venice Turpentine, of each one Ounce; make into a Ball with Oil of Amber.

Three or four of these Balls may be given at proper Intervals, with a Decoction of Mashmallows, sweetened with Honey. But notwithstanding the greatest Care and Skill is made Use of, this Fever carries off many brave Horses.

Gr. What are the bad Symptoms in this Fever?

Doct. Loss of Flesh and Appetite, and being Hidebound; frequent Sneezings; when a discolour'd Gleet is discharg'd from the Nostrils; Swellings about the Joints; Eyes looking fixed and dead; stinking Breath; Tail rais'd and quivering; and when a Purging ensues, with a Discharge of fætid, dark-colour'd Matter; these are bad Signs, and accounted irrecoverable.

Gr. Is there not a Fever of the intermitting Kind among Horses?

Doct. The Fever I've been speaking of is many times brought to intermit.

Gr. How do you proceed in such Cases?

Doct. As soon as the Fit is over, I immediately give an Ounce of Jesuit's Bark, and repeat it every five or six Hours, till the Horse has taken at least five Ounces; and should Erruptions or Swellings appear, you are to encourage them, these being good Symptoms at the Decline of a Fever, denoting a Termination of the Distemper, and that no farther Medicines are wanting.

Gr. I remember an epidemic Cold and Fever among Horses in the Years 1732 and 1734, and many of them were cur'd by high Bleeding and Roweling.

Doct. I had many Horses in Hand myself at the Times you mention, and all did well: I used high Bleeding, and gave an Ounce of Nitre two or three times a Day in his Water. To finish the Cure, I purged with the cooling Purge N° 3 (adding thereto an Ounce of Anniseeds bruised) than which there can

be nothing better given; I have often known a ſingle Doſe carry off a Cold and ſlight Fever.

Gr. What are your Thoughts of the Hunter you have in Hand, that was troubled ſo violently with the Gripes?

Doct. The Doctor who firſt view'd the Horſe was miſtaken, as well as you, in calling his Diſorder the Gripes; it was a Pleuriſy, and Inflammation of the Lungs; but many have fallen into the like Miſtakes.

Gr. How then are the Gripes to be diſtinguiſhed from theſe pleuritic Diſorders?

Doct. The grip'd Horſe often lies down and rolls; and, when in violent Pain, he will have convulſive Twitches, his Eyes being turn'd up, and Limbs ſtretch'd out, as if he were dying; his Ears and Feet are often hot, and frequently extremely cold; he falls into great Sweats, and then into cold Damps; he often attempts to ſtale and dung, but with great Pain and Difficulty; and Nature ſeldom carries off theſe bad Symptoms without ſome Aſſiſtance.

Gr. What are the Symptoms in a Pleuriſy?

Doct. In that Diſorder, a Horſe's Ears and Feet are always burning hot; his Mouth parch'd and dry; his Pulſe hard and quick; he will make many Motions to lie down, yet afterwards reins back, as far as his Collar will permit, and makes not the leaſt Offer to change his Poſture, but ſtands panting with ſhort Stops, and a Diſpoſition to cough, till he has Relief, or drops down.

Gr. What are the Symptoms of inflam'd Lungs?

Doct. Many of the Symptoms are the ſame as in a Pleuriſy, except that the Horſe, in the Beginning, is leſs active, and ſeldom or never offers to lay down; he breaths with great Difficulty; and has, generally ſpeaking, a ſhort Cough; when he opens his Mouth, a roapy Slime will run plentifully out; he gleets alſo

at

at the Noſe a diſcolour'd, thin Matter, which ſticks like Glue to the Inſide of his Noſtrils; and his Ears and Feet very cold, and at other times in damp Sweats.

Gr. What is the Method of Cure for the inflam'd Lungs?

Doct. Both theſe Diſorders require nearly the ſame Treatment to compleat a Cure, and depend very much on ſpeedy, large, and repeated Bleedings. Firſt, take near three Quarts of Blood; the next Day, take about two more; and, if the Symptoms do not appear more favourable, you are to follow Bleeding, but not exceed a Quart at one time. Horſes grown weak by Age, or Infirmities, you are to bleed oftner, but conſiderably leſs in Quantity. Mr. Gibſon recommends Rowels, one on each Side the Breaſt, and one on the Belly; he likewiſe orders a bliſtering Ointment to be rubb'd all over his Briſket upon the foremoſt Ribs.

Gr. What Diet is proper in this Diſorder?

Doct. Both Diet and Medicines ſhould be cooling, attenuating, relaxing, and diluting; and he ſhould have warm Maſhes, and Plenty of thin Gruel, as in the Fever. The following Balls have been given two or three times a Day with great Succeſs.

N° 9 — Sperma-ceti and Nitre, of each 1 Ounce; Oil of Anniſeeds 30 Drops; Honey ſufficient to make a Ball.

After having given one of theſe Balls, you are to give the Horſe about a Pint of thin Barley-water, in which four or five Figs and two Ounces of Liquorice-root have been boil'd; add to this the Juice of two Lemons. You are conſtantly to adminiſter this Drink, a few Minutes after you give the Ball above-mentioned. A ſtrong Decoction of the Rattle-ſnake-

root

root has done much Good in pleuritic Diſorders, and may be given to full two Quarts a Day, ſweeten'd with Honey: It is by many reckon'd a grand Specific; and indeed it merits Eſteem, as it moſt aſſuredly attenuates the Blood, and diſperſes the Inflammation. Emollient Glyſters, with Nitre and Cream of Tartar, have likewiſe been found beneficial.

Gr. Does the Horſe linger long under theſe Diſorders?

Doct. If he is not reliev'd in a few Days, the Inflammation generally terminates in a Gangrene, or Collection of Matter, which, for Want of Expectoration, ſoon ſuffocates him.

Gr. Is nothing more to be done, than what you have already preſcrib'd, while the Horſe is thus diſorder'd?

Doct. If your Horſe does not take to his Feed after giving the Medicines already mention'd, but continues hot and ſhort breath'd, bleed him again, and give the following purging Glyſter.

N° 10 — Senna and Marſhmallows, of each two Ounces; Fennel and Bay-berries, each one Ounce; boil theſe in two Quarts of Water for about an Hour; pour off the clear Part, and add thereto four Ounces of purging Salts, two Spoonfuls of Syrup of Buckthorn-berries, and half a Pint of good Linſeed-oil.

If you find this do Service, it may be repeated again the next Day but one; you may offer him ſcalded Bran, and a very ſmall Quantity of choice Hay for his Feed; and, if he takes to it, you may leave off the pectoral Ball. There is likewiſe an external Pleuriſy, or Inflammation of the Muſcles between the Ribs.

Gr. How is this diſcover'd?

Doct.

Doct. By its Symptoms; which are, a remarkable Stiffneſs of the Body and Fore-legs; ſometimes with a ſhort, dry, and very troubleſome Cough, and a Shrinking, when handled, in thoſe Parts. If not well cur'd, it lays the Foundation of what is call'd a Cheſt-founder.

Gr. How is this Diſorder cur'd?

Doct. Bleeding, ſoft Pectorals, and gentle Purges, are the internal Remedies; and externally the Parts affected may be bathed with equal Parts of Spirit of Sal-armoniac, and Ointment of Maſhmallows, or Oil of Camomile.

Gr. What are the moſt approvod Cures for Coughs?

Doct. Bleeding plentifully in moſt Caſes is recommendable; but, ſhould the Horſe be very low in Fleſh, it is to be done more ſparingly. Then I adviſe the following alterative Purge.

N° 11—Take Gum-galbanum, Ammoniacum, and Aſſa-fœtida, of each two Drachms; Aloes one Ounce; Saffron half a Drachm; Oil of Aniſeeds and Balſam of Sulphur one Drachm each; with Honey ſufficient to make into a Ball.

Theſe may be given two or three times a Week; and the Days you don't adminiſter this Ball, give one of the following every Morning.

N° 12—Take Cinnabar of Antimony, finely levigated, five Ounces; Gum-ammoniacum, Galbanum, and Aſſa-fœtida, of each one Ounce and Half; Juice of Garlick half a Spoonful; make Paſte for Balls with Honey.

By this Method I rarely fail of curing Coughs, tho' they be ere ſo troubleſome, or of long ſtanding.

Moderate

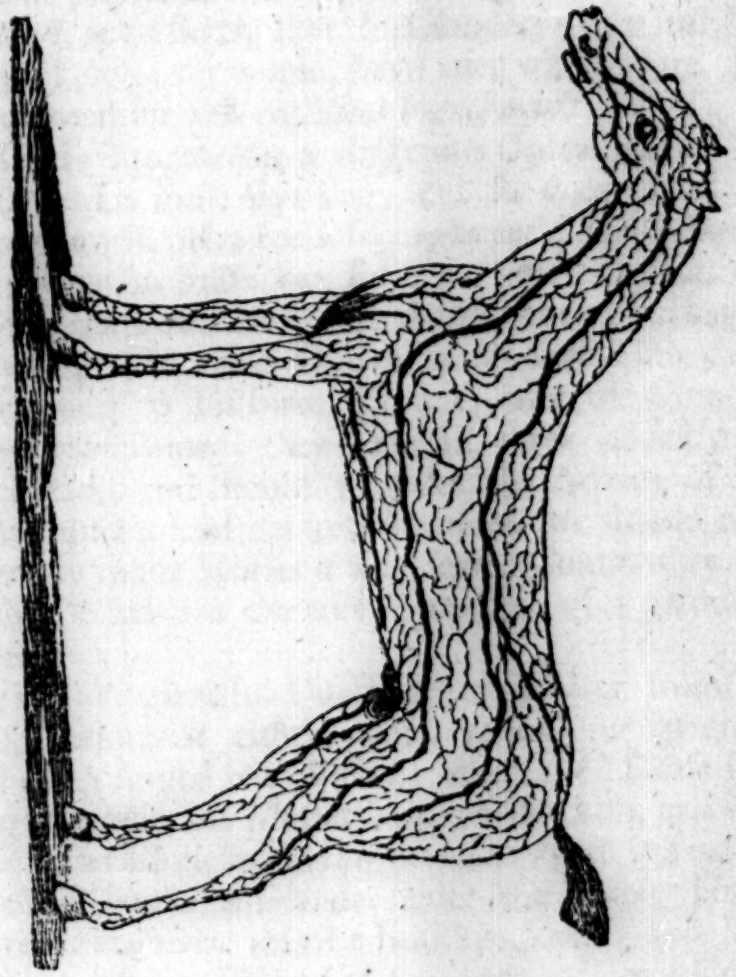
Moderate Exerciſe and Diet is to be obſerved; give Hay in very ſmall Quantities, and now and then ſcalded Bran, as in the Fever, &c.

Gr. As I find Bleeding is recommendable in a great Number of Caſes, I ſhould be glad to have ſome Account of the Operation.

Doct. The Veins in a Horſe are very numerous, as may be ſeen by the Fig. but thoſe we open in Diſorders are, 1. The Temple-vein; 2. Eye-vein; 3. Palate-vein; 4. Neck-vein; 5. Breaſt-vein; 6. Plat-veins; 7. Shank-veins; 8. Cronet-veins; 9. Hoof-veins; 10. Spur-veins; 11. Kidney-veins; 12. Spavin-veins; 13. Flank-veins; 14. Hanch-veins; 15. Tail-veins; and 16. the Fet-lock-veins. The 1ſt is open'd in all manner of cold Diſeaſes in the Head; 2d, open'd in Diſorders of the Eyes; 3d, in Diſorders of the Head, Brain, or Stomach; 4th, the common Place of Bleeding for numerous Diſorders; 5th, open'd in Fevers, or when a Horſe is ſick at Heart; 6th, open'd to relieve foundering in the Feet, or other Diſorders of the Limbs; 7th, open'd for Splents, Mallander, &c. 8th, open'd in Ring-bones, &c. 9th, open'd likewiſe to relieve founder'd Feet; 10th, to relieve ſpur-galling, foundering, &c. 11th, open'd to relieve Diſorders in the Kidnies; 12th, open'd to relieve the Blood-ſpaven; 13th, to remove Grief in the Reins or Fillets; 14th, open'd in Conſumptions of the Fleſh; 15th, open'd for the Shedding of the Hair, or Mangineſs; and the 16th, open'd to relieve Stiffneſs, or Tiring.

Gr. I have heard much of the new Method of curing the Glanders by Trepanning; do you imagine it will anſwer what is ſaid of it?

Doct. Very far from it! It was firſt invented by La Foſſe, Farrier to the King of France, and has lately been practis'd in England, but with ſo little Succeſs,



Succeſs, that it is now not regarded, notwithſtanding the romantic Stories in its Favour, we find in a ſmall Book of Farriery, the Compiler of which ſeems to be ſo extravagantly fond of French Novelty, that he glories in this Horſe-killing Scheme of Monſieur's; and aſſerts, that the Glanders never had, nor very likely never would have met with a Cure, had it not been for this *ingenious Frenchman*.

Gr. Is Trepanning a dangerous Operation?

Doct. La Foſſe ſays not; and ſo does *one* of our Countrymen, who has *lately commenc'd Horſe-Doctor*. It appears La Foſſe has little to boaſt of from his nine or ten Years Toil and *endleſs* Study, he having only trepann'd three Horſes in all that Time; and (according to his own Account) after the Cure was *nearly* compleated, they were all three knock'd on the Head; and ſhould we take the Advice of our Countryman, and go to trepanning, we ſhould moſt certainly make Horſes a very ſcarce Commodity.

Gr. What are the true Symptoms of a glander'd Horſe?

Doct. A plentiful Diſcharge of Matter from the Noſe; which is either white, yellow, or greeniſh, and often tinged with Blood; when the Diſeaſe is of long ſtanding, the Matter becomes blackiſh, and very fetid; the Horſe is always attended with a Swelling of the Kernels or Glands under the Jaws; but in other Reſpects he may be healthy, ſound, and look well, unleſs the Diſtemper has been of long Continuance. But to proceed to a real, ſafe Engliſh Cure, you are firſt to take Notice, that this Diſorder is caus'd by an Inflammation of the Glands and Membrane that lines the Noſtrils and theſe Cavities; which, if not ſeaſonably diſpers'd, forms Matter, and will ulcerate and erode the Bones, cauſing them to become rotten, &c. for Want of a free Diſcharge

to

to unload the Cavities, and of proper Applications to cleanſe and deterge the Ulcers. La Foſſe owns, that when the Bones become rotten, it will then be the beſt Way to diſpatch the Horſe to ſave both Expence and Trouble, and that there is no Poſſibility, in ſuch Caſe, of curing by the Trepan; and, on the other Hand he owns, that a Cure readily takes Place, by eaſy and gentle Medicines, where the Bones are not impared; I ſay, as this is exactly the Caſe, may we not juſtly aſſert, that the Trepan is both a uſeleſs and barbarous Inſtrument?

Gr. I never ſaw but two Horſes trepann'd; one died under the Operation, and the other was knock'd on the Head.

Doct. I have lately ſeen four Horſes and three Mares trepann'd, and ſix of them died in about a Week after the Operation; the other I have no Account of.

Gr. What is your Method of Cure for this Diſorder?

Doct. The Method I ſhall lay down, has lately cur'd upwards of fifty Horſes out of Threeſcore; and, provided my Directions are carefully obſerv'd, I very much queſtion if one in a Hundred would miſs of a Cure. You are firſt to procure a cloſe warm Stable, keep the Horſe a Day or two with ſmall Quantities of choice Hay, and ſcalded Bran; then over Night, blow up his Noſtrils as much Aſſarabacca, in fine Powder, as will lie on a Six-pence, and repeat it again in the Morning; his Drink to be a weak Lime-water; and this you may follow four or five Days: Then take two Ounces of Elecampane-roots, boil them in a Quart of Milk till they are ſoft enough to mingle with it, which you are to give the Horſe while it is warm; continue this three or four Days, and afterwards give Markham's Moſs-water, which is thus prepar'd: Take two Handfuls of white Moſs,

which

which grows on old Oaken-pales, and boil it in two Quarts of Milk, till near one Quart be waſted; then ſtrain it, ſqueeze the Moſs well, and give it the Horſe Milk-warm; this you may continue four or five Days; and about an Hour after you have given the Drink each Day, proceed as follows: Take the Quantity of a Pullet's Egg of good ſweet Butter, and about half an Ounce of Brimſtone, finely pow-der'd, and work theſe very well together into a Salve; then take two clean Gooſe Feathers, the longeſt you can procure, and make a Hole in each, at the Quill-ends, and faſten two long Threads thereto; having done thus, anoint (with your Salve) the Feathers, till they are well ſoak'd therewith; and after this roll them in dry Powder of Brimſtone: You are now to open the Horſe's Noſtrils, and thruſt up the Feather-ends into his Head; and the Threads which are at the Quill-ends you are to faſten on the Top of the Horſe's Head, which keeps the Feathers from drop-ping out. It is requiſite, if the Weather be mild, to ride your Horſe for an Hour or two, Morning and Evening; and when you bring him to his Stable, let him ſtand about half an Hour before you take out the Feathers; then give him a little Hay ſprinkled with Urine, and after that, ſome ſcalded Bran. Du-ring this Operation, it would forward the Cure, if you bathe his Head with Spirit of Wine camphorated; and afterwards confine his Head over a Tub of hot Grains, in ſuch Manner as he may have the Benefit of the Steam ariſing from them. Proceed in this Manner for eight or nine Days, and you need not doubt of a compleat Cure: But, to prevent a Re-lapſe, and to decoy the Humours from their old Channel, I adviſe a Rowel; after which, give one of the following alterative Balls every other Day for a Week.

N° 13 — Turbith Mineral one Drachm; Diapente one Ounce; make into a Ball with Honey.

You may then let your Horſe reſt four or five Days; and after give him about two Ounces of Nitre a Day, either in his Corn, Water, or a Ball, as you like beſt; but however given, it muſt be finely powder'd; if made into a Ball, it is to be done with Honey. And thus you have a ſure Cure, at a trifling Expence, and very little Trouble.

Gr. It is ſaid you have a never-failing Cure for the Greaſe in the Heels; I ſhould be glad if you would communicate it to me.

Doct. I was always a Friend to a Horſe; and, as I perceive you are very diligent in acquiring Cures for their Diſorders, I will put it in your Power to do the Beaſt Service, and yourſelf Credit. It has been often ſaid to be incurable, like the Glanders; but I can prove the contrary, as I have done in that Diſorder, without calling in a *Frenchman* to my Aſſiſtance. You are firſt to cleanſe the Heels of a Horſe thus diſorder'd with Bran and Water, as warm as the Beaſt can bear it; and the Waſh is much more efficacious, if the Bran has been boil'd for ſome Time in the Water, and about a Quarter of a Pound of Hog's Lard diſſolv'd therein; let the Heels be very well waſh'd and bath'd therewith twice every Day; and after the Horſe has ſtood ſome time, and his Heels are quite dry, rub them twice a Day with the following Ointment.

N° 14 — Verdigriſe four Ounces; of the ſharpeſt Vinegar ſix Ounces; Honey one Pound; let them all boil over a gentle Fire to a duſky Colour, adding towards the latter End, Tincture of Myrrh, Roch-allum, and Sal-ammoniac, of each half an Ounce; mix them well, and make into an Ointment.

During the Time you externally apply this Ointment, it will be very recommendable to give the following ſweetening Drink every Day for five or ſix Weeks, as it comes for a Trifle, and does much Service.

N° 15— Shavings of Guaiacum two Pounds; Liquorice-root bruiſed three Ounces; crude Antimony, groſly powder'd, and put into a Bag, one Pound: Boil them in ten Quarts of clear Water about an Hour, and keep the Decoction upon the Ingredients in a clean earthen Veſſel for Uſe.

You are to give three or four Hornfuls two or three times a Day: And after the Heels have been dreſs'd a Week with the Ointment, you ſhould waſh them very well with the following Lotion twice a Day for eight or nine Days ſucceſſively.

N° 16— Cream of Tartar four Ounces; Sublimate four Drachms; diſſolve theſe in two Quarts of Spring-water, and bathe the Heels often therewith.

Before you uſe this Lotion, it is the beſt Way to waſh the Heels very well with hot Water and Bran to cleanſe them of the greaſy Ointment; and the Lotion does more Service when uſed hot; but then you are to take Care you don't ſtand over the Steam, it being of a very pernicious Nature; and it is beſt to rub the Heels either with a ſoft Bruſh, or a Piece of Spunge.

Gr. Is this Cure to be depended on in all Caſes?

Doct. In my whole Practice it has very ſeldom fail'd.

Gr. In the Caſes it fail'd, did you give up the Cure, or did you ſucceed by other Remedies?

Doct. I have cur'd in many deſperate Caſes, after being deem'd incurable by ſeveral others, by the Means I have already mention'd, and the Addition

of a Waſh made of the Powder of burnt (or rather dry'd) Spunge.

Gr. How is this Waſh prepared?

Doct. You are to procure ſome ſmall Cuttings of Spunge, the larger Pieces being dear, and dry them in an Oven till hard and criſp, then

N° 17—Take half an Ounce of the Powder of Spunge, and diſſolve it in a Quart of Spring-water; add thereto Honey and Vitriol, of each one Ounce, and waſh the Heels often therewith.

As theſe obſtinate Caſes generally come from ſome internal Cauſe, I adviſe Bleeding, Roweling, and frequent Purging; and give the Nitre in either Ball, Meat, or Water, as before mention'd.

Gr. What are the Symptoms when you ſuſpect the Greaſe to proceed from internal Cauſes?

Doct. The Legs are much gorged; the Hair ſtares up, is pen-feather'd, and has a large, ſtinking Diſcharge, from deep and foul Sores: Hence a dropſical State of the Blood is ſuſpected, and a general bad Diſpoſition of the Blood and Juices.

Gr. Does not often lying down forward the Cure?

Doct. Very much; Dr. Bracken has thought it ſo material, that he has given the following Directions to oblige the Horſe to lie down, viz. Tie up one of his fore Feet cloſe, and faſten a Cord about the other Fetlock, bringing the other End of it over the Horſe's Shoulders; then let him be hit, or kick'd with your Foot *behind that Knee*, at the ſame Time pulling his Noſe ſtrongly to the Manger, you bring him upon his Knees, where he ſhould be held till he is tir'd; but if he ſhould not lie down ſoon, let him be thruſt ſideways againſt his Quarters to throw him over; by forcing him down ſeveral times in this Way, you may teach him to lie down at the ſame Words you firſt

uſed

uſed for that Purpoſe. Other Means are recommended for this Purpoſe, ſuch as tying the Horſe's Tail with a Cord, touching his Skin with Oil of Vitriol, &c.

Gr. Is the Greaſe the only Diſorder in the Heels of Horſes?

Doct. No; they are often troubled with Scratches, Crown-ſcabs, and Rat-tails. Scratches are cur'd nearly by the ſame Means as the Greaſe; the Heels are kept ſupple with Currier's Dubbing; and, in obſtinate Caſes, the following Ointment may be made Uſe of.

N° 18 — Venice Turpentine four Ounces; Quick-ſilver one Ounce; incorporate well together by rubbing ſome Time; and then add Honey and Sheep's Suet, of each two Ounces.

Anoint twice a Day; and if the Horſe is fleſhy, bleed and purge; if in a bad State, give the alterative Ball N° 13; or continue the Nitre, as directed in p. 43.

Gr. What is the Crown-ſcab, and how cur'd?

Doct. It is a ſharp, itching Humour, that breaks out round the Coronet.

N° 19 — Take Maſhmallows and yellow Baſilicon equal Parts, ſpread them on Tow, and lay all round the Coronet.

Give the Ball N° 27, and afterwards the following diuretick Drink, and the Cure is compleated.

N° 20 — Take four Ounces of yellow Roſin; one Ounce of Sal Prunel. grind them together with an oiled Peſtle, add a Drachm of Oil of Amber, and give it in a Pint of Forge-water every Morning, faſting two Hours before and after taking, and ride moderately.

Gr. How are Rat-tails known?

Doct. They are Excreſſences which run from the Paſtern to the Middle of the Shanks; there are two Sorts, one dry, the other moiſt; the dry Kind is cur'd by the following Mercurial Ointment.

N° 21 — Quickſilver one Ounce; Venice Turpentine half an Ounce; rub them together in a Mortar till the Globules of the Quickſilver diſappear; then add two Ounces of Hog's Lard.

The moiſt Kind is cured by the following drying Waſh and Ointment.

N° 22 — Take half an Ounce of Roman Vitriol, diſſolve it in a Pint of Water; pour off the clear Part into a Bottle, add thereto a Pint of camphorated Spirit of Wine, the ſame Quantity of Vinegar, and two Ounces of Ægypticum.

The Ointment.

N° 23 — Honey four Ounces; Red-lead powder'd two Ounces; Verdigriſe, in fine Powder, one Ounce; mix theſe well together, and they are fit for Uſe.

If the Hardneſs does not ſubmit to theſe Medicines, ſome adviſe the Uſe of the Knife; but in ſuch Caſe I rather adviſe the following Ointment, which rarely fails.

N° 24 — Black Soap four Ounces; quick Lime two Ounces; Vinegar ſufficient to make an Ointment.

Gr. It is ſaid by many, that Broken-winded Horſes are incurable; what is your Opinion of this Diſorder?

Doct. Some Caſes will not admit of a Cure.

Gr. What are thoſe?

Doct. Where the Diſorder is occaſion'd by an uncommon Size of the Heart and Lungs, which obſtructs the free Action of the Midriff: In this Caſe, little more is to be done than palliating the Symptoms, and mitigating their Violence.

Gr. What do you recommend in this Caſe?

Doct.

Doct. Sparing Diet, moderate Exerciſe, and being kept conſtantly abroad; if you give Hay, let it be very ſparingly, and wetted with Urine: And either Salts, Cream of Tartar, or Lemon-juice, in the Water, do great Service: You may likewiſe give the admirable Ball inſerted in Pag. 48, which is a certain Cure, except where the Diſorder takes it Riſe from the Cauſe I have juſt mentioned.

Gr. Is there nothing more to be done, than what you have ſpoken of?

Doct. Three or four Cloves of Garlick given in their Feed, or two or three Ounces of it boil'd in a Quart of ſkimm'd Milk, and Tar-water given every other Day for three Weeks or a Month, often does great Service; and ſo does the following alterative purging Ball, which may be given once a Fortnight.

N° 24 — Succotrine Aloes five Drachms, Myrrh Galbanum, and Ammoniacum, of each two Drachms; Bay-berries half an Ounce; make into a Ball with a Spoonful of Oil of Amber.

Gr. Is this Diſorder eaſily diſcover'd in the Beginning?

Doct. Yes; and eaſily cur'd: Before a Broken-wind appears, it is common for a Horſe to have an obſtinate dry Cough; a Diſpoſition to foul Feeding; eating Litter, and drinking much Water; but Bleeding and giving the Ball mention'd in Page 48, prove an effectual Cure.

Gr. How is the Conſumption in Horſes cured?

Doct. Bleeding in very ſmall Quantities, and often; Feeding in the Salt-marſhes; giving Tar-water for a conſiderable Time; and, at Intervals, an Ounce of the following Powder twice a Day.

N° 25 — Native Cinnabar, or Cinnaber of Antimony, one Pound; powder very fine, and add the ſame Quantity of Gum Guaiacum and Nitre.

Gr. How are the Staggers diſcover'd? And what the moſt effectual Cure?

Doct. Drouſineſs; watry Eyes; a Diſpoſition to to reel; Feebleneſs; bad Appetite; the Head frequently hanging, or reſting on the Manger; Diſpoſition to rear up, and apt to fall back when handled about the Head; theſe are the common Symptoms in the Staggers. But if the Diſorder proceeds from Wounds or Bruiſes on the Head, or Matter on the Brain, beſides the above Symptoms, the Horſe will be frantick by Fits; will ſtart and fly at every Thing; and theſe laſt are dangerous Caſes; and ſo are thoſe when Horſes fall down ſuddenly, and work violently at their Flanks, without being able to riſe.

Gr. What is to be done in theſe Caſes?

Doct. The Veſſels are to be empty'd as ſoon as poſſible, by ſtriking the Veins in ſeveral Parts at once, and bleeding to full four Quarts; to raiſe up the Horſe's Head and Shoulders, and ſupporting them with Plenty of Straw. After the Fit, cut Rowels; and give Glyſters Night and Morning, prepared with a ſtrong Decoction of Senna and Salt, or the purging Glyſter N° 10. It will alſo forward the Cure to blow up his Noſtrils, once a Day, as much Aſſarabacca as will lie on a Shilling: And, to prevent a Relapſe, give an Ounce of equal Parts of Cinnabar of Antimony and Gum Guaiacum.

Gr. What are the Symptoms of Convulſions?

Doct. In Convulſions the Neck is ſtiff and cramp'd, and almoſt immoveable; and frequently Knots will ariſe on the tendinous Part thereof; the Muſcles in general will be ſo much pulled, cramped, and ſtretched, that the Horſe looks as if nail'd to the Ground; his Skin is drawn ſo extremely tight all over his Body, that it is very difficult to move it; his Legs are ſtiff and ſtradling; and on forcing him

to move, he is ready to fall at every Step; his Eyes are ſo fix'd with the Inaction of the Muſcles, as gives him a Deadneſs in his Looks; he ſnorts and ſneezes very often; and pants continually, with Shortneſs of Breath; and this Symptom often increaſes till the Horſe falls down dead.

Gr. By what Means is the Horſe to be relieved?

Doct. If fleſhy, you are to bleed plentifully; if not, more ſparingly; and give the following nervous Ball.

N° 26 — Aſſa-fœtida half an Ounce; Ruſſia Caſtor, powder'd, two Drachms; Valerian-root, powder'd, one Ounce; make into a Ball with Honey and Oil of Amber.

You are to give this Ball twice a Day at firſt, and then once; it is to be waſh'd down with a Decoction of Miſletoe, or Valerian, ſweeten'd with Liquorice, or Honey; an Ounce of Aſſa-fœtida may likewiſe be tied up in a Piece of ſtrong coarſe Linnen Rag, and put behind his Grinders to champ on. To keep the Body open, give the emollient Glyſter N° 1; or the Purge N° 3.

Gr. It is ſaid theſe Diſorders often ariſe from Bots and Worms; have you met with any Inſtances of this Kind?

Doct. A great many; but, where this appears to be the Caſe, I give the following mercurial Ball.

N° 27 — Mercurius Dulcis, and Philonium, of each half an Ounce; make into a Ball with Conſerve of Roſes. You may give half the Quantity in five or ſix Days after.

I then give the following Infuſion, three or four Horns twice a Day, which I continue till the Symptoms abate; and the nervous Ball may be given till the Cure is compleated.

N° 28

N° 28 — Penny-royal and Rue, of each two Handfuls; Camomile-flowers one Handful; Aſſafœtida and Caſtor, of each half an Ounce; Saffron and Liquorice-root, ſliced, of each two Drachms; infuſe theſe in two Quarts of boiling Water; and pour off from the Ingredients as you uſe it.

Repeated Frictions are alſo very ſerviceable in convulſive Diſorders: And the following emollient Liniment has been often uſed with much Succeſs.

N° 29 — Nerve and Maſhmallow Ointment, of each four Ounces; Oil of Amber two Ounces; with a ſufficient Quantity of camphorated Spirit of Wine.

Gr. I have heard you have a certain Remedy for Diſorders in the Eyes; I ſhall be glad to know in what Manner you proceed.

Doct. If the Horſe is fleſhy, Bleeding is neceſſary; give the cooling Drink, N° 4; and bathe the Eye and Eye-lids with a clean Spunge dipp'd in the following repelling Eye-water.

N° 30 — Roſe-buds two Drachms; infuſe theſe in half a Pint of Plantain-water, boiling hot; when cold, pour off the Infuſion, and add to it one Scruple of Sugar of Lead.

Sir Hans Sloane's Ointment has likewiſe been us'd with great Succeſs in Diſorders of the Eyes of Horſes: See Page 140.

Gr. How is the Drink prepared you give in the Gripes, that has afforded Relief after many other Medicines failed?

Doct. It is the Drink very deſervedly recommended by Burdon, and is made thus.

N° 31 — Boil an Ounce of Pepper, or Ginger, in a Quart of Milk; add thereto a Handful of Salt, and half a Pint of Sweet Oil.

This

This is to be given warm; it ſoon purges, and certainly affords Relief. In the dry Gripes it will be alſo neceſſary to empty the ſtrait Gut with a ſmall Hand well oiled; and likewiſe to give an emollient oily Glyſter.

Gr. What is the beſt Method of Cure for the Farcy?

Doct. Large Bleedings, eſpecially if the Horſe be fleſhy; after Bleeding give three or four Ounces of Cream of Tartar and Lenitive Electuary; you may give this every other Day for a Fortnight; then give three Ounces of Nitre a Day for a Month; and anoint the Buds and Swellings with the following Ointment Morning and Evening.

N° 32 — Ointment of Elder four Ounces; Oil of Turpentine two Ounces; Sugar of Lead half an Ounce; white Vitriol, powder'd, 2 Drachms; mix theſe well together, and it is fit for Uſe.

But when this Diſorder becomes inveterate, nothing exceeds mercurial and antimonial Medicines.

Gr. Do the Strangles and Vives differ much in Symptoms, or Cure?

Doct. The Strangles moſt commonly begin with a Swelling between the Jaw-bones, and often extend to the Muſcles of the Tongue; they occaſion great Heat and Pain; and, till Matter is form'd, the Horſe ſwallows with great Difficulty. The Vives differ from the Strangles only in this; the Swellings of the Kernels under the Ears (which are the Parts at firſt chiefly affected) ſeldom come to Matter, but diſperſe by warm Cloathing, anointing with Maſhmallow Ointment, and a moderate Bleeding or two. But, ſhould the Diſorder be too malignant to be carried off by theſe Means, you may anoint with the mercurial Ointment, N° 18.

Gr. Does the Cure of the Strangles differ from that of the Vives?

Doct.

Doct. In the Strangles, Nature is to be aſſiſted in bringing the Swellings to Maturity, by keeping them conſtantly moiſt with Ointment of Maſhmallows, and keeping the Head and Neck cover'd warm. If the Swelling comes to Matter ſlowly, the following ſuppurating Poultice may be applied hot twice a Day.

N° 33 — Take the Leaves of Maſhmallows eight Handfuls; white Lilly-root half a Pound; Linſeed and Fenugreek-ſeed, bruiſed, of each four Ounces; boil them in two Quarts of Water till the Whole is pulpy, and add 4 Ounces of Ointment of Maſhmallows, and a ſufficient Quantity of Hog's Lard to prevent its growing ſtiff and dry.

Matter being formed, and the Diſcharge made freely, dreſs with the following digeſtive Ointment ſpread on Tow, continuing the Poultice over it.

N° 34 — Roſin and Burgundy-pitch, of each one Pound and Quarter; Honey and common Turpentine, each ſix Ounces; yellow Wax four Ounces; Hog's Lard three Quarters of a Pound; Verdigriſe, finely powder'd, one Ounce; melt the Ingredients together; but don't put in the Verdigriſe till remov'd from the Fire, and then it is to be ſtirred in by Degrees till the Whole is cold.

If the Fever run high, take away a moderate Quantity of Blood, and dilute with Plenty of Barley-water, Maſhes, &c.

Gr. Is Bleeding neceſſary in the Mange?

Doct. I uſually take away three or four Pounds of Blood, and give a mild Purge ſuch as N° 3, once a Week for five or ſix Weeks following. A ſulphur Ointment is alſo neceſſary; and to cleanſe and purify the Blood, I give Antimony and Sulphur for ſome Weeks after; and this Method ſeldom fails of curing.

Gr.

Gr. What is the ſafeſt Cure for the Poll-Evil?

Doct. If it proceeds from Blows, Bruiſes, &c. bathe the Swelling often with hot Vinegar; if you perceive an Ouzing thro' the Skin, uſe two Parts Vinegar, one Part Spirit of Wine; and if there be an Itching, Heat and Inflammation, you are to bleed, and apply Poultices of Bread, Milk, and Elder-Flowers; you are likewiſe to give the Ball N°. 27, and repeat it occaſionally. But, if there are Signs of Matter, the beſt Method then is to forbear Purging, and apply the ripening Poultices, till it comes to Maturity and burſt of itſelf, or is opened with a Knife; but great Care ſhould be taken to avoid the tendinous Ligament that runs along the Neck under the Mane; when the Matter is on both Sides, ſo muſt the Opening, and the Ligament remain undivided. It ſometimes happens, that a ſecond Inciſion is requir'd; in which Caſe dreſs with the common Digeſtive of Turpentine, Honey and Tincture of Myrrh, and after Digeſtion, with the Precipitate Ointment; or waſh the Sore with the following made hot, and fill up the Cavity with Tow ſoak'd therein.

N°. 35 — Vinegar, or Spirit of Wine, half a Pint; white Vitriol, diſſolved in Spring Water, half an Ounce; Tincture of Myrrh, four Ounces; or it may be made ſharper, by adding more Vitriol.

Mr. Gibſon was ſo fond of this Waſh, that he declares he has cur'd a great Number of Horſes without any other Formality of dreſſing, than waſhing with this twice a Day, and laying over the Part a Quantity of Tow, ſoak'd in Vinegar, and the White of Eggs beat together.

Gr. Do you approve of firing in the Bone-ſpavin?

Doct. I always uſe the following Ointment firſt; and, ſhould it fail of Succeſs, the Swelling may be ſafely

ſafely fired with a thin Iron, fixed very deep into the Subſtance.

N°. 36 — Take Nerve and Maſhmallow Ointment, of each two Ounces; Quickſilver one Ounce, well broke with an Ounce of Venice Turpentine; Spaniſh Flies, powder'd, a Drachm and a Half; Sublimate one Drachm; Oil of Origanum two Drachms.

The Hair is to be cut quite cloſe, and the Ointment to be apply'd very thick over the Part; do this in a Morning, and tie up the Horſe all Day without any Litter till Night; you may then untie him in order to lie down; and a Pitch Plaiſter may be laid over it, which ſhould be bound on to keep all cloſe.

Gr. Are not Mallenders and Sallenders much the ſame Diſorders?

Doct. Mallenders are Cracks in the Bend of a Horſe's Knee, that diſcharge a ſharp indigeſted Matter; Sallenders are the ſame Diſtemper, ſituate on the Bending of the Hough, and occaſion a Lameneſs behind.

Gr. In what Manner are they cured?

Doct. Cut off the Hair, and waſh them with a ſtrong Lather of old Urine; then anoint often with the following Ointment.

N°. 37 — Æthiops Mineral half an Ounce; white Vitriol one Drachm; ſoft green Soap ſix Ounces.

On drying up, give the Purge N°. 11; and Nitre is advantageouſly given for eight or ten Days.

Gr. How are Wind-galls to be cured?

Doct. You are to bathe the Swelling two or three Times a Day with old Verjuice, and bind it with a Woollen Cloth ſoaked therein: But, if this does not ſucceed, pierce the Swelling with an Awl, and apply thereto, every other Day, a ſmall Quantity of the bliſtering Ointment, N°. 36.

Gr.

Gr. I have often ſeen the above Reſtringents and Bandage us'd with Succeſs in a Blood-ſpavin.

Doct. If early apply'd, they generally anſwer the End very well; but if theſe Means do not reduce the Vein to its uſual Dimenſions, the Skin ſhould be opened, and the Vein tied with a crooked Needle and Wax Thread paſſed underneath it, both above and below the Swelling, and the turgid Part ſuffered to digeſt away with the Ligatures; for this Purpoſe the Wound may be dreſſed daily with Turpentine, Honey, and Spirit of Wine, incorporated together.

Gr. How is the Bog-ſpavin treated?

Doct. There is no better Method of Cure than what is laid down by Dr. Bracken; who ſays a Bog-ſpavin is a Collection of browniſh gelatinous Matter, contained in a Bag, or Cyſt, which he thinks to be the lubricating Matter of the Joint altered, the common Membrane that incloſes it, forming the Cyſt: This Caſe he has taken great Pains to illuſtrate in a young Colt of his own, where he ſays, When the Spavin was preſſed hard on the Inſide the Hough, there was a ſmall Tumor on the Outſide, which convinced him the Fluid was within ſide the Joint: He accordingly cut into it, diſcharged a large Quantity of this gelatinous Matter, dreſſed the Sore with Doſſils dipp'd in Oil of Turpentine, putting into it, once in three or four Days, a Powder made of calcined Vitriol, Allum and Bole: By this Method of dreſſing, the Bag ſloughed off, and came away, and the Cure was ſucceſsfully compleated without any viſible Scar. —— This Diſorder, ſays a very modern Writer, will ſcarcely ſubmit to any other Method, except Firing, when the Cyſt ought to be penetrated to make it effectual; but in all obſtinate Caſes that have reſiſted the above Method, both the Cure of this, and the Swellings called Wind-galls, ſhould, I think,

think, be attempted in this Manner. If through the Pain attending the Operation, or Dreſſings, the Joint ſhould ſwell and inflame, foment it twice a Day, and apply a Poultice over the Dreſſings till the Swelling is reduced.

Having now given you an Account of the various Diſorders incident to Horſes, with effectual Cures adapted to the different Caſes, I ſhall take my Leave; deſiring you to pay a due Attention to my new Plan no longer than it does you Credit, and the Publick Service.

The two following Remedies having gain'd great Reputation by the many Cures they have perform'd, we inſert them for the Good of the Publick.

A neverfailing Cure for a Cough in either Horſe, or Cow—Take a Quart of freſh Ale, or good ſtrong Beer, warm it, and put thereto a Pound of Treacle, and a Quarter of a Pint of diſtilled Anniſeed-water; ſtir it well together, and give it the Horſe, or Cow, after their ordinary Meat; next Morning give a Pail of warm Water, with a Handful of Oat-meal in it; with a ſmall Maſh of Malt, and a Handful of Beans for a Horſe.

The Excellent Ball for Broken-winded Horſes, that has made a perfect Cure of upwards of Seven Hundred, in leſs than Nine Months, after many other Medicines try'd in vain—Myrrh, Elicampane, and Liquorice Root, in fine Powder, three Ounces each; Saffron three Drachms; Aſſa-fœtida one Ounce; Sulphur, Squills, and Cinnabar of Antimony, of each two Ounces; Aurum Moſaicum one Ounce and a Half; Oil of Anniſeeds 80 Drops. You may make it into Paſte with either Treacle or Honey; and give the Horſe the Quantity of a Hen's Egg every Morning for a Week; and, afterwards, every other Morning till the Diſorder is remov'd.

The

The Manner of Riding, Breaking, and Taming a Colt, of the Great Kind — After your Colt hath been eight or ten Days at Home, and is reduced to that Familiarity that he will indure currying without ſhewing Averſion thereto, and will ſuffer his Keeper to handle and ſtroke him in what Part of the Body he thinks beſt, then it is Time to offer him the Saddle; firſt laying it in the Manger that he may ſmell to it, and thereby grow acquainted with it, uſing all other Means that he may not be afraid either at the Sight thereof, or at the Noiſe of the Stirrups. Having gently put on the Saddle, take a ſweet watering Trench, waſh'd and anointed with Honey and Salt, and ſo place it in his Mouth, that it may hang directly about his Tuſh, ſomewhat leaning thereon: Having ſo done, which muſt be in a Morning after dreſſing, then lead him out in your Hand, and water him abroad, then bring him in, and after he hath ſtood rein'd a little upon his Trench (an Hour or thereabout) take off Bridle and Saddle, and give him Liberty to feed till Evening, and then do as before; having cheriſhed him, dreſs and cloath him for the Night.

The next Day do as you did before, and after that put on him a ſtrong Muſrole, or ſharp Cavezan and Martingal, which you ſhould buckle at that Length, that he may only feel it when he jerketh up his Head; then lead him forth into ſome new plow'd Land, or ſoft Ground, and there having made him trot a good while about in your Hand, to take him off from Wantonneſs and wild Tricks, offer to mount, which if he refuſe, trot him again in your Hand, then put your Foot in the Stirrup, and mount half Way and diſmount again; if he ſeem diſtaſted at it, about with him again, and let him not want neceſſary Correction; but if he take it patiently, cheriſh him, and

place yourſelf in the Saddle; ſtay there a very little while, then cheriſh him again, and give him Bread and Graſs to feed on: Re-mount him again, placing yourſelf even in the Saddle, and carrying your Rod inoffenſively to his Eye, let ſome Perſon, having the Chaff-halter in his Hand, lead him a little Way, then make him ſtand, and having cheriſhed him, let him go forward again; and this you are to do, till you have brought him to go forward of his own Accord. When you return to the Stable, a-light gently, and dreſs and feed him well.

Obſerve this Courſe every Day, till you have brought him to trot, which will not exceed three or four, if you make him follow ſome other Horſeman, ſtopping him now and then gently, and then making him go forward, remembering his ſeaſonable Cheriſhings, and not forgetting his due Corrections as often as you find him rebellious. When you ride him abroad, return not the ſame Way home, that you may make him take all Ways indifferently: And by theſe Obſervations you will bring him to underſtand your Will and Purpoſe in leſs than a Fortnight's Time.

Having brought your Horſe to receive you to his Back, trot fore-right, ſtop and retire with Patience and Obedience; be never unmindful of your Helps, Corrections, and Cheriſhings, which conſiſt in the Voice, Bridle, Rod, Calves of the Legs, and Spurs; the laſt of which is chiefly for Correction, which muſt not be done faintly, but ſharply, when Occaſion ſhall require it.

Cheriſhings may be comprehended within three Heads, the Voice delivered ſmoothly and lovingly, as *So, ſo Boy, ſo*; then the Hand, by clapping him gently on the Neck or Buttock: Laſtly, the Rod,

by

by rubbing him therewith upon the Withers of the Mane, in which he very much delights.

The next that you are to regard, is the Muſrole, or Cavezan, or Martingale; this is an excellent Guide to a well diſpoſed Horſe, for ſettling of his Head in due Place, forming of his Rein, and making him appear lovely to the Eye of the Spectator; and withal this is a ſharp Correction when a Horſe jerketh out his Noſe, diſorders his Head, or endeavours to run away with his Rider.

The Manner of placing it, is thus: Let it hang ſomewhat low, and reſt upon the tender Griſſel of the Horſe's Noſe, that he may be the more ſenſible of Correction; and let it be looſe, that the Horſe may feel, on drawing in his Head, how the Offence goes from him, and by that Means be made ſenſible, that his own Diſorder was his only Puniſhment.

You ſhould carefully obſerve how you win your Horſe's Head, and by thoſe Degrees bring his Martingale ſtreighter and ſtreighter, ſo as the Horſe may ever have a gentle Feeling of the ſame, and no more, till his Head be brought to its true Perfection, and there ſtay.

When you have brought your Horſe to ſome Certainty of Rein, and he will trot fore-right, then bring him to the treading forth of the large Rings. If your Horſe's Nature be ſlothful and dull, yet ſtrong, trot him firſt in ſome new-plow'd Field; but, if nimble, and of a fiery Spirit, then trot him in ſome ſandy Ground, and there mark out a ſpacious Ring; and having walk'd him about it on the Right ſeven or eight times, you muſt then, by ſtreightening your Right-rein a little, and laying the Calf of your Left-leg to his Side, making a half Circle within your Ring, upon your Right-hand down to the Centre thereof, and then, by ſtreightening your

Left-rein a little, and laying the Calf of your Right-leg to his Side, making another Semi-circle to your Left-hand, from the Centre to the utmoſt Verge; which two Semi-circles contrary turned, will make a perfect Roman S within the Ring; then, keeping your firſt large Circumference, walk your Horſe about in your Left-hand, as oft as you did on your Right; then change within your Ring, as you did before, to your Right-hand again; and trot him firſt on the Right-hand, then on the Left, as long as you ſhall think convenient, either one, two, or three Hours, to perfect him in this Leſſon; and this muſt be done every Morning and Evening too, if you find your Horſe ſlothful and dull; otherwiſe you need not take ſo much Pains with him.

Having taught him to trot the large Rings perfectly, which will not require above four or five Days; then in the ſame Manner and Changes make him gallop the ſame Rings, making him take up his Feet ſo truly and loftily, that no Falſhood may be perceived in his Stroke, but that his inward Feet play before his outward, and each of a Side follow the other ſo exactly, that his Gallop may appear the beſt Grace of all his Motions.

Here note, you muſt not enter him at once to gallop this great Ring, but by Degrees; firſt quarter, then a half quarter, *&c.* ever remembering, not to force him into it with the Spur, but by the Lightneſs and Chearfulneſs of your Body, let him paſs of his own Accord into a Gallop.

Helps, Corrections, and Cheriſhings in the Ring-turns, are as aforeſaid, the Elevation of the Voice, and the Threatning of the Rod, and ſtreightening of the Bridle, are good Helps, which you muſt uſe, as you muſt the Spur, Rod, and Leg, for timely due Cor-

Corrections: Neither muſt you ever cheriſh without Deſert.

Having made your Horſe gallop as well as trot the large Ring, then teach him to ſtop fair, comely, and without Danger, after this Manner: Firſt, having cheriſhed him, bring him into a ſwift Trot forward about fifty Paces; then draw in your Bridle-hand ſtraitly and ſuddenly, which will make him gather up his hinder and Fore-legs together, and thereby ſtand ſtill: Then eaſe your Hand a little, that he may give backward; which if he doth, give him more Liberty, and cheriſh him. Having given a little Reſpite, draw in your Bridle-hand, and make him go back three or four Paces, at which if he ſtrike, inſtantly eaſe your Hand, and draw it up again, letting him come and go till he yield and go backward; but if he refuſe it, let ſome Perſon ſtanding by put him back, and then cheriſh him, that he may know your Intention. Thus every Time you ſtop, make him retire, till you have perfected him in theſe two Leſſons at one Time.

Have a Care that the Ground be not ſlippery where you ſtop, but firm and hard, leſt the Horſe, apprehenſive of the Danger of falling, refuſe to ſtop as you would have him.

When your Horſe can ſtop well, and retire, you muſt then teach him to advance before, when he ſtoppeth; a Leſſon that carrieth much Grace and Comelineſs therein; it is performed in this Manner: After you have ſtopped your Horſe without giving your Hand any Eaſe, lay the Calves of both your Legs hard to his Sides, ſhaking your Rod, and crying, *Up, up*; which, though he underſtand not at firſt, yet by frequent Practice, with Helps, Cheriſhings, and Corrections, as aforeſaid, he will come to underſtand your Meaning. But be ſure you look

narrowly to the Comelineſs of the advancing, which conſiſts in taking up his Legs both even together, bending them inward to his Body; next, his Advance muſt not be too high, for Fear of his coming over upon you; but let him couch his hinder Loins cloſe to the Ground, but by no means ſuffer him to ſprawl or paw with his Feet forward. Laſtly, he muſt not advance for his own Pleaſure (for that is a great Fault) but for yours, according to your Will and Command.

If in advancing he riſe too high, ready to come over, or ſprawl, or paw; give him not only your Spurs both together, but laſh him twice or thrice with your Rod between his Ears, and if he advanceth of his own Accord, then jerk him over the Knees, doing ſo as often as he commits thoſe Faults.

The Uſe of advancing is this; it not only graceth all other Leſſons, but makes his Body nimble, and fits him for ready turning; it is moſt uſed at ſtopping, and then very gracefully.

In the next Place, you are to teach your Horſe to yerk out behind, after this Manner: As ſoon as you have made him ſtop, preſently give him a Jerk under his Belly, near his Flank, which will make him underſtand you in Time, tho' not preſently. At firſt doing, cheriſh him much, and having let him pauſe, make him do it again, till he is ready to repeat it as often as you would have him; but withal look to the Comelineſs of his yerking, for it is not graceful for him to yerk out his Hinder-legs till his Fore-legs be above the Ground; and ſee that he yerk not one Leg farther out than the other, but both being together, and not too high, or one Leg out whilſt the other is on the Ground.

Helps in yerking, are the conſtant ſtaying of his Mouth on the Bridle, the Stroke of the Rod under his Belly, or a gentle Touch thereof on his Rump.

If he refuſe to yerk, or doth it diſorderly, then a ſingle Spur on that Side that is faulty; and laſtly, continual diſeaſing him till he hath done it.

Now to teach him to turn readily on both Hands, is firſt to bring his large Rings into a narrower Compaſs, that is, about four Yards in Circumference, walking your Horſe therein with all Gentleneſs, and at his own Pleaſure, till he is acquainted therewith: After this, carry your Bridle-hand conſtant, and ſomewhat ſtrait, the outmoſt Rein ſtraiter than the inmoſt, making the Horſe rather look from the Ring, than into it; and thus trot him about, firſt on the one Side, then on the other, making your Changes as aforeſaid. Thus exerciſe him an Hour and Half, then ſtop, and make him advance three or four times together, then retire in an even Line, and afterwards ſtand ſtill and cheriſh him: Having pauſed a while to recover Breath, exerciſe him as aforeſaid, ſtill endeavouring to bring his Trot to all the Swiftneſs and Loftineſs poſſible, making him do his Changes roundly and readily, and cauſing him to lap his outmoſt Leg ſo much over his inmoſt Leg, that he may cover it more than a Foot over: And thus exerciſe him ſeven or eight Days, every Morning at leaſt three Hours, and ſuffer him only to practiſe his former Leſſons once in a Morning; in this Manner you teach your Horſe three Leſſons together, the *Terra a Terra*, the *Incavalere*, and the *Chambletta*.

The Turn *Terra a Terra* in the outmoſt Circle of the ſtrait Ring, and the *Incavalera* and *Chambletta* in the Changes, wherein he is forced to lap one Leg over another, or elſe to lift up the hindermoſt Leg from the Ground, whilſt he brings the outmoſt over

it: This Leſſon is ſo difficult, that a compleat Horſeman ſhould think his Horſe hath never perfectly learn'd it, therefore he muſt continually practiſe his Horſe in treading, trotting, and gallopping theſe narrow Rings, and from thence to paſs them about in Ground-ſalts, as from taking up his Fore-legs from the Ground both together, and bringing his hinder Feet in their Place, and ſo paſſing the Ring as often as the Strength of your Horſe, and your own Reaſon will allow of.

Thus you ſee the perfecting your Horſe in the large Ring, will eaſily introduce him to the Knowledge of the ſtrait Ring, and that brings him to turn perfectly, and ſtopping begets retiring, and retiring, advancing.

Having brought your Horſe to this Perfection, take off his *Muſrole* and *Trench*, and in their Stead put on his Head a gentle *Cavezan*, in ſuch Manner, that it lie on the tender Griſſel of his Noſe, ſomewhat near the upper Part of his Noſtrils; put in his Mouth a ſweet ſmooth Cannon-bit, with a plain watering Chain, the Check being of a large Size, let the *Kirble* be thick, round, and large, hanging looſely upon his nether Lip, ſo that it may entice him to play therewith.

Having ſo done, mount, caſting the Left-rein of your *Cavezan* over the Horſe's Right-ſhoulder, and bear it with your Thumb, with the Reins of the Bit in your Left-hand, let the Right-reins of the *Cavezan* be caſt over his Left-ſhoulder, and bear it with your Rod in your Hand, and ſo trot him forth the firſt Morning about two Miles in the Highway, making him now and then ſtop and retire, and gather up his Head in its due Place; the next Day bring him to his former large Rings, and perfect him therein with the Bit, as you did with the Snaffle in all the fore-

going

going Leſſons, which is more eaſily done, by Reaſon the Bit is of better Command, and of ſharper Correction.

The next Thing we ſhall ſpeak of is the Turning-poſt, which muſt be ſmooth and ſtrong, and very well fixed in the Centre of the ſtrait Ring, then cauſing ſome Perſon to ſtand at the Poſt, give him the Right-rein of your Cavezan to hold about the Poſt, and ſo walk or trot your Horſe about the ſame, as oft as you think fit on your Right-hand; then change your Right-rein for your Left, and do as before; continue thus doing till your Horſe be perfect in every Turn. Having ſo done, teach him to manage (the proper Poſture for a Sword) which is thus performed: Cauſe two Rods to be prick'd in the Earth, at what Diſtance you ſhall think fit from one another; then walk your Horſe in a ſtrait Ring about the firſt on your Right-hand, paſſing him in an even Furrow down to the other Rod, and walk about that alſo in a narrow Ring on your Left-hand, then thruſt him into a gentle Gallop down the even Furrow, till you come to the firſt Rod, and there make him ſtop, as it were, and advance without Pauſe or Intermiſſion of Time; thruſt him forward again, beat the Turn Terra a Terra about on your Right-hand; then gallop foreright to the other Rod, and in the ſame Manner beat the Turn about on the Left-hand; do this as often as you think convenient; though there are many Sorts of Managers, yet I hold but two neceſſary and uſeful, and that is this already deſcribed, called Terra a Terra, and Incavalere or Chambletta, afore-mentioned. As for the Career, I need not ſpeak much thereof; only this, when you run him foreright at full Speed, ſtop him quickly, ſuddenly, firm and cloſe on his Buttock, and mark that you make not your Career too long, nor too ſhort; the one

weakens,

weakens, and the other hinders the Diſcovery of his true Wind and Courage; therefore let not the Length of your Career extend above ſixſcore Yards; and be ſure you give him ſome little Warning by your Bridle-hand, before you ſtart him, and then ſtop him firmly and ſtrongly.

Of the Horſe of Pleaſure — If you would make a Horſe to bound aloft, you muſt firſt trot him about ſixteen Yards, then ſtop him, and when he hath advanced twice, ſtrengthen a little your Bridle-hand, and then give him the even Stroke of both your Spurs together hard, which at firſt will only ſurprize him, but if he have good Mettle and Courage, he will at length riſe from the Ground by often doing it; if he doth it, though but little, cheriſh him very much; then let him pauſe, and give him your Spurs again, and if he acts according to your Deſire, cheriſh him again; make him do thus three or four times a Day, till he is ſo perfect that he will do it at any Time at your Spurs Command.

Next, teach him to corvet thus: Hollow the Ground a Horſe's Length, where two Walls join together, then place a ſtrong ſmooth Poſt by the Side, of the Hollowneſs of a Horſe's Length likewiſe from the Wall, and over-againſt the Poſt faſten an Iron-ring at the Wall: This done, ride your Horſe into the hollow Place, and faſten one of the Reins of the Cavezan to the Ring, and the other about the Poſt; then (having firſt cheriſhed your Horſe) make him advance by the help of the Calves of your Legs, twice or thrice together, and let him pauſe; after this (cheriſhing him again) advance him half a Score times together, and daily encreaſe his Advancings, till you perceive he hath got ſuch a Habit therein, that he will by no Means go forward, but keeping his Ground certain, advance both before

and

and behind of an equal Height, and keep juſt and certain Time with the Motions of your Legs; and if he raiſe his hinder Legs not high enough, you muſt have ſome body behind, who having a Rod, muſt gently jerk him on the Fillets, to make him raiſe his hinder Parts. By taking this Courſe in a few Days you will ſo teach your Horſe to corvet, that without any Helps, at any Time and Place, you may make him corvet at your Pleaſure.

I need not ſpeak of the Capriole, ſince it is the ſame Manner of Motion as the Corvet, only it is done forward, gaining Ground in the Salt, raiſing his hinder Parts as high or higher than the foremoſt.

If you would have your Horſe go ſide-long on any Hand, you muſt draw up your Bridle-hand ſtreight, and if you would have him go on the Right-hand, lay your Left-rein cloſe to his Neck, and the Calf of your Leg cloſe to his Side, making him put his Left-leg over his Right; then turning your Rod back-wark, gently jerking him on the Left hinder Thigh, make him bring his hinder Parts to the Right Side alſo, and ſtand in an even Line as at the firſt, then make him remove his Fore-parts more than before, ſo that he may, as it were, croſs over the even Line, and then make him bring his hinder Parts after, and ſtand in an even Line again, and this do till by Practice he will move his fore Parts and hinder Parts both together, and go ſide-long as far as you pleaſe; and if you would have him go on the Left-hand, do as before. Theſe are the moſt material Leſſons requiſite to be taught any Horſe whatever, either for Service or Pleaſure, which, if taught your Horſe with Care and Patience, you may conclude your Horſe perfect and compleat. But be ſure you obſerve this, that whatſoever Leſſon your Horſe is moſt imperfect in, with that Leſſon, when you ride, begin and end; repeat-

repeating every one over, more or leſs, leſt Want of Uſe breed Forgetfulneſs, and Forgetfulneſs abſolute Ignorance.

Directions for the Management of a Race-Horſe— The beſt Time to take the Race-horſe from Graſs is about Bartholomew-tide, the Day being dry, fair, and pleaſant; as ſoon as he is taken up, let him ſtand all that Night in ſome convenient dry Place to empty his Body; the next Day put him into a Stable, and feed him with Wheat-ſtraw, but no longer; for tho' the Rule be good in taking up Horſes Bellies after this Manner, yet if you exceed your Time in ſo doing, this Straw will ſtraighten his Guts, heat his Liver, and hurt his Blood; therefore what you want in Straw, let it be ſupplied by riding him forth to Water Morning and Evening, Airings, and other moderate Exerciſe. And for his Food, let it be good old ſweet Hay, and cloath him according to the Weather and Temper of his Body; for as the Seaſon grows colder, and thereby you find his Hair riſe and ſtare about his Neck, Flanks, or other Parts, then add a Woollen Cloth, or more if Need require, till his Hair fall ſmooth. You are to obſerve, that a rough Coat ſhews Want of Cloth, and a ſmooth Coat Cloth enough.

A Race-horſe ought to be dreſs'd in his reſting Days twice a Day, being his Morning and Evening Watering, and ſhould be done after this Manner: Curry him from the Tips of his Ears, to the ſetting on his Tail, all his Body entirely over with an Iron-comb, his Legs under the Knees and Grambles excepted; then duſt him and currey him high again all over with a round Bruſh of Briſtles; then duſt him the ſecond time, and rub all the looſe Hair off with your Hands dipt in fair Water, and continue rubbing till he is quite dry; then rub every Part of him with

with a Hair-cloth, and laſtly with a white Linnen Cloth; then pick his Eyes, Noſtrils, Sheath, Cods, Tuel, and Feet very clean, and cloath him and ſtop him round with Wiſps.

There is no better Water for a Race-horſe, than a running River, or clear Spring, about a Mile and half from the Stable, near ſome level Ground, where you may gallop him afterwards, having ſcop'd him a little, bring him to the Water again, then ſcope him and bring him again, till he refuſe to drink more for that Time; after this, walk him home, cloath and ſtop him up round with great ſoft Wiſps, and having ſtood an Hour upon the Bridle, feed him with ſweet ſound Oats, either dried by Age or Art: If your Horſe be low of Fleſh, or hath a bad Stomach, add one Third of Beans to two Parts of Oats, and that will recover both.

The next Food you give him ſhould be better and ſtronger, which is Bread, to be made after this Manner: Take two Buſhels of Beans, and one of Wheat, and grind them together, then boult through a fine Range the Quantity of half a Buſhel of pure Meal, and bake it in three Loaves, and the reſt ſift through a Meal-ſieve, and kneed it with Water and good Store of Barm, and bake it in great Loaves; with the coarſer Bread feed your Runner in his reſting Days, and with the finer againſt the Days of his Exerciſe and greateſt Labour.

The Times of his Feeding, upon the Days of his Reſt, ſhould be after his coming from Water in the Morning, an Hour after Mid-day, after his Evening Watering, and at Ten o'Clock at Night; but, upon his labouring Days, two Hours after he is cooled, he is to be fed in the following Manner; let his Hay be dry and ſhort; if it be ſweet, no matter how coarſe it is, for if it be rough it will ſcour his Teeth. As for

the

the Proportion of his Food, I need not preſcribe a Quantity, ſince you muſt allow him according to the Goodneſs or Badneſs of his Stomach.

His Exerciſe ought to be thrice a Week, and it muſt be more or leſs, according to the Condition of his Body; for if it be foul, exerciſe him moderately to break his Greaſe; if clean, you may do as you think fit, having a Care that you diſcourage him not, nor abate his Mettle; and after every Exerciſe, give him that Night, or the next Morning, a Scowering; the following being extraordinaty good to purge a Horſe from all Greaſe, Glut, or Filth whatever, I recommend it before any other: Take three Ounces of Anniſeeds, ſix Drachms of Cummin-ſeeds, a Drachm and a Half of Carthamums, two Drachms of Fenugreek-ſeeds, and Brimſtone two Ounces; beat all theſe to a fine Powder, and ſearſe them; then take of Sweet Oil about a Pint, a Pound and a half of Honey, and two Quarts of Wine; then with fine white Meal knead it well into a ſtrong Paſte, and keep it by you for Uſe, it being firſt made up into Balls, about the Size of a Hen's Egg: You are to diſſolve one of theſe Balls in a Pail of fair Water (Milk-warm) and give it him to drink after Exerciſe, in the Dark, leſt diſcolouring the Water, the Horſe refuſe to drink. This is a very valuable Scowering, will keep good a long Time, and a certain Remedy for many internal Diſtempers.

After Exerciſe, cool him a little abroad before you bring him home; then houſe him, and litter him well, rubbing him with dry Cloaths till there be not a wet Hair about him; then cloath and whiſp him round.

Before you air your Horſe, it will be requiſite to break a raw Egg into his Mouth, as it will add much to his Wind. If he be fat, air him before Sun-riſe,

and

and after Sun-ſet; but if lean, let him have as much Comfort of the Sun as you can. Courſing in his Cloaths is ſometimes neceſſary, as it makes him ſweat, though it ſhould be moderately done.

Let his Body be empty before you courſe him; and waſh his Tongue and Noſtrils with Vinegar, or piſs in his Mouth before you back him: After courſing is over, cloath him, and ride him home gently.

Be careful, when you take your Horſe up, to cloath and dreſs him well; when and how to feed and water; what and how much Exerciſe is requiſite, either by airing, or by courſing; his Ordering after Exerciſe; what Scowerings are moſt requiſite; and, that I may yet add more to your Knowledge, I will conclude with the following neceſſary Rules and Inſtructions.

1. Courſe not your Horſe hard, at leaſt four or five Days before you run your Match, leſt the Soreneſs of his Limbs abate his Speed.

2. Except your Horſe be a foul Feeder, muzzle him not above two or three Nights before his Match, and the Night before his bloody Courſes.

3. As you give your Horſe gentle Courſes, give him ſharp ones too, that he may as well find Comfort as Diſpleaſure thereon.

4. Upon the Match-day, let your Horſe be empty, and take his Reſt undiſturbed, till you lead him out.

5. Shoe your Horſe every Day before you run him, that the Pain of the Hammer's Knocks may be out of his Feet.

6. Saddle your Horſe on the Race-day in the Stable before you lead him forth, and fix both the Pannel and the Girths to his Back and Sides with Shoemaker's Wax, to prevent all Dangers.

7. Lead your Horſe to his Courſe with all Gentleneſs, and let him ſmell to other Horſes Dung, that thereby

thereby he may be enticed to ſtale and empty his Body as he goes.

8. Laſtly, when you come to the Place where you are to ſtart, firſt rub his Limbs well, then uncloath him, take his Back, and the Signal given, ſtart him with all the Gentleneſs poſſible, leſt doing any Thing raſhly, you choak him in his own Wind.

A Race-Horſe ought to have all the fineſt Shapes that may be; but above all Things, he muſt be nimble, quick, and fiery, apt to fly with the leaſt Motion. Long Shapes are tolerably good; for tho' they ſhew Weakneſs, yet they aſſure ſudden Speed. The beſt Horſe for this Uſe is the Arabian Barbary, or his Baſtard; Gennets are good, but the Turks much better.

MISCELLANEOUS ARTICLES.

How to make Ball-Soap; and its great Uſe in Families.

THIS Soap is eaſily made, and goes much farther than any of the other Soaps. You are to make a Lee from Aſhes and Tallow; then put the Lees into a Copper, and boil them till the watery Part is quite gone, and there remains nothing in the Copper but a ſort of nitrous Matter (the very Strength or Eſſence of the Lee) to this the Tallow is put, and the Copper kept boiling and ſtirring for above half an Hour, in which Time the Soap is made; it is then taken out of the Copper, and put into Tubs, or Baſkets, with Sheets in them, and immediately (whilſt warm) made into Balls. You are to take Notice, that it requires near 24 Hours to boil away the watery Part of the Lee.

A certain

A certain Cure for the moſt ſevere Flux — Take a Quantity of Water-Creſſes, and boil them in clear Water for fifteen Minutes, ſtrain them off, and drink half a Pint of the Decoction every now and then, about Milk-warm.

A never-failing Cure for the Hic-cough — A ſingle Drop of Chymical Oil of Cinnamon, dropt on a Piece of treble-refin'd Sugar; let it diſſolve in the Mouth leiſurely.

An approved and infallible Method of taking away any Scale, or Film, from the Eyes — Borax muſt be finely pounded in a Marble Mortar, and a ſmall Quantity thereof blown into the Eye every Morning and Evening; it will eat away the Speck, or Film, and not in any wiſe injure the Humours of the Eye.

To keep Arms, or other Poliſh'd Metals, from Ruſt — One Ounce of Camphire, two Pounds of Hogs-Lard; diſſolve them together, and take off the Scum; mix as much Black-Lead as will bring them to an Iron Colour: Rub your Arms, *&c.* over with this, and let it lie on 24 Hours; then clean them with a Linnen Cloth, and they will keep clean many Months.

To make Japan Ink — Gum Arabic and Roman Vitriol, each one Ounce; Galls, well bruiſed, one Pound; put them into Rape-vinegar, ſet them in a warm Place, ſtir them often, till the Liquor becomes black; then add to a Gallon, one Ounce of Ivory-black, and a Quarter of a Pint of Seed-lack-varniſh.

To dutch, or clarify Quills — Scrape off the out Film, and cut the Ends off; then put the Barrels into boiling Water, wherein is a ſmall Quantity of Allum and Salt; let them remain a Quarter of an Hour; then dry them in a hot Pan of Sand, or an Oven.

To make common Black Ink — To one Quart of Rain, or River Water, put three Ounces of Galls, groſly bruiſed, half an Ounce of Gum Arabic, of Copperas and Roach Allum, each one Quarter of an Ounce, half an Ounce of common Salt, and a Spoonful of Brandy; ſhake all up together in the Bottle, and in a Fortnight it will be fit for Uſe.

To make good Red Ink — One Pint of ſtale Beer, two Ounces of Brazil-Wood, ground, Twopenny-worth of Cochineal, two Ounces of Roch-Allum, and one Ounce of Gum Arabic; boil all together, then filter it off.

To deſtroy and prevent Buggs, and other Vermin, by Mr. Salberg, Member of the Academy of Sweden — Mix, with the Solution of Vitriol, the Pulp of Coloquintida, and apply the Mixture to all the Crevices, which ſerve as a Nurſery to Vermin; the Solution alone has prov'd effectual; but, if apply'd to Stone, or Brick Walls, it may be mix'd with Lime, which will give it a lively Yellow, and inſure its Succeſs. The boiling any Kind of wooden Work in the Solution of Vitriol, effectually prevents it from taking the Worm, and preſerves it from Rottenneſs and Decay.

The valuable Effects of the Juice of Sloes, from an Indian Manuſcript — Whatever Linnen, or Woollen, is mark'd with this Juice, ſuch Letters, or Marks, are not to be diſcharg'd by any Means whatever. Tie three Ounces of the Powder of burnt Horſe-beans in a Piece of Linnen, and boil it half an Hour in a Pint of the ſaid Juice, and it makes a Writing-Ink, in all Reſpects far ſuperior to any other, not being to be diſcharg'd by Art, or defac'd by Time. In a Phyſical Way, it immediately ſtops Bleeding in either Man, or Beaſt, by bathing the Wound therewith. And the Knowledge of this Article has been of the utmoſt

utmoſt Service to great Numbers of Families. In Regard to Needle-Work, it is evident more may be done in one Hour, by the Aſſiſtance of this Juice, than could be accompliſh'd with a Needle in many Days: You are to take Care the Linnen is dry; and uſe this Juice with a Pen, in the ſame Manner you do Ink. When waſh'd, the Marks on the Linnen are of a fine Purple Colour, and has this very great Advantage above marking with a Needle, that there is no other Way of removing whatever Marks are put on, but by cutting out the Piece.

The noted Roberts's ſure Method of deſtroying Rats, or Mice; by which he acquir'd a good Fortune — Mix Flour of Malt with ſome Butter, and add thereto a Drop or two of Oil of Anniſeeds; make it up into Balls, and bait your Trap therewith. If you have Thouſands, by this Means you may take them all. The round Trap, with ſeveral Holes, is beſt; and it ſhould be ſet in ſuch Places the Vermin moſt frequent. But, if you would take them without a Trap, make up ſmall Balls of the above-mention'd Compoſition, and add to every four Ounces, a Quarter of an Ounce of Corroſive Sublimate.

How to take the natural or lively Shape of any Plant, or Herb, upon Paper — Take the Leaf, and lay it ſmooth between the Leaves of a Book; let it remain there a few Minutes, till it lies quite flat; afterwards wet it with Linſeed-Oil, or Printer's Ink; then preſs it hard upon clean white Paper (that has been moiſtened with River Water) and you will have the perfect Figure of the ſaid Leaf, with every Vein thereof, ſo exactly expreſs'd, as being lively colour'd, it will ſeem truly natural.

How to whiten Copper, or Braſs, ſuperficially — Take Sal Armoniac, Allum, Nitre, of each a like Quantity; put to them a little Filings of Silver, or

Silver-Leaf; mix them well together, and then put them into a Crucible, and that into the Fire, till it be red hot, and has done ſmoaking, then moiſten this Powder with Water, wherein common Salt has been diſſolv'd, and rub the Metal therewith.

How to make Oil-Cloth; very neceſſary for Country People, or any that travel in wet Weather — You are firſt to make a Drying-Oil, by taking Red-Lead and Umber, each half an Ounce, Linſeed-Oil 2 Pounds, which boil for a Quarter of an Hour, or longer; let theſe ſtand two Days, and it will have a Skin over it, and be fit for Uſe. You are now to take off the Skin, ſet the Oil on the Fire, and diſſolve ſome good Roſin in it, and let the Quantity be ſuch, as may make the Oil fit to ſpread upon Cloth; when the Roſin is diſſolv'd, you may add to it ſome Colour, as Verdigreaſe for Green; Umber for Brown; or Indigo and White for a light Blue.

How to make fine Staining Liquors, uſed in planning, beautifying, and ſtaining of Prints, &c. Firſt, a deep Green — Take Juice of the greeneſt Worts a Pint, ſtrain it thro' a Cloth, and diſſolve in it a ſufficient Quantity of purified Verdigreaſe.

Another Green — Firſt ſtain the Leather, Parchment, or Paper, with a Blue, and let it dry; then lay on ſome of the following yellow Stains.

Yellow Stains — Saffron, Turmerick, French Berries, Orcanette, or Gambooge; any of them will give a good Yellow.

A light Green — Take a Quart of Malt-wort, put it into two Shells full of Florey; firſt ſtain with this, then upon this Staining lay Yellow, till it becomes Green; the more you lay on of your yellow ſtaining Liquor, the lighter the Green will be.

A Blue Stain — Firſt make a weak Lixivium of Pot-Aſhes, or uſe Lime-Water; put into it a ſufficient

cient Quantity of Florey, and a little Allum; let it diſſolve over the Fire, keeping it ſtirring, then add ſome Wood-Aſhes, and you will have a fine Blue.

A weaker Blue — Diſſolve a good Quantity of Florey, and a little Allum in a ſufficient Quantity of fair Water.

To gild with Leaf-Gold — Grind Leaves of Gold in a few Drops of Honey; add to it a Trifle of Gum-Water, and it will be excellent to write, or paint with.

How to gild Leather — Take Glair of Eggs, or Gum-Water, and with a Bruſh rub over the Leather with either of them; then lay on the Gold or Silver; let them be dry, then burniſh them.

To make fine red, hard Sealing-Wax — Take half a Pound of Shell, or Gum-Lack, melt it in an Earthen Veſſel; then put an Ounce and Half, or 2 Ounces, of purely ground fine Vermillion; mix them well over the Fire, and when it is of a fit Compoſition, make it up into Balls or Cakes; and to ſet a Gloſs upon it, heat it gently over a naked Charcoal Fire, and rub it with a Cloth till it is cold.

How to make a coarſer Sort — Shell-Lack and Roſin, of each 6 Ounces, good Vermillion 3 Ounces; mix, *&c.* as above directed. Many uſe fine Red-Lead, in the Place of Vermillion, for the more ordinary Kind of Sealing-Wax.

How to make Black Wax — Mix Ivory-Black with Shell or Gum-Lack as by the foregoing Receipt.

How to make Sealing-Wafers — Take very fine Wheat-Flour, mix it with Glair of Eggs, Iſinglaſs, and a little Yeaſt; mix the Materials, and beat them well together, ſpread the Batter (being made thin with Gum-Water) on even Tin-Plates, and dry them in a Stove, then cut them out for Uſe. You may make them of what Colour you pleaſe, by tinging

the Paſte with Vermillion, or Brazil, for Red; Indigo, or Verditer, for Blue; Saffron, Turmerick, or Gambooge, for Yellow.

How to Caſe-harden Iron — Take Cow-horn, or Hoof, raſp it when green (and not dry it in an Oven after the common Method) put as much Bay-ſalt as of this Powder into ſtale Urine, or Vinegar, and mix them well together; then cover the Iron all over with this Mixture, and wrap it up in Loam, or Plate-Iron, ſo that the Mixture may touch every Part of the Work; then put it into the Fire, and blow the Coals to it, till the whole Lump has attained a Blood red-hot (but no higher) then take it out, and quench it in clear Water.

How to gild Paper — Mix Bole-Armoniac with Rain-Water, and give one Laying of it; when it is dry, take Glair of Eggs, and add to it a little Sugar-Candy and Gum-Water, which lay over the former, and upon this, when it is dry enough, lay Leaf-Silver, or Leaf-Gold.

An approv'd Cure for the Rheumatiſm — Take five Ounces of Stone-Brimſtone, reduce it to a fine Powder, divide it into 14 equal Parts, and take one Part every Morning faſting in Spring-Water. Note, This Receipt came from a worthy Clergyman; he ſaid it had, to his certain Experience, a very good Effect upon great Numbers of People that made Uſe of it.

To lay Mezzo-Tinto Prints upon Glaſs — Having provided a thin ground Glaſs very true, or a Sort of fine white Glaſs, call'd Cockhill Glaſs (of the ſame Size as your Picture) ſteep the Print flat ways in warm Water for about an Hour, more or leſs, according to the Thickneſs, Thinneſs, or Hardneſs thereof; and then, with a thin Knife, or Bruſh (the Hairs of which will not come out) ſpread Venice-Turpentine very thin and even all over the Glaſs;

and,

and, if the Weather be cold, warm the Glaſs at the Fire, and daub it all over with your Fingers, that there may not be the leaſt Speck of the Glaſs that is not covered with the Turpentine. Then take the Print out of the Water, and lay it on a ſmooth Table, upon a clean Napkin, or between two Papers, to dry out all the ſuperfluous Water. When you have done this, lay the Print upon the Glaſs by Degrees, beginning at one End, and ſtroaking outwards that Part which is juſt faſtened to the Glaſs, that no Wind or Water may lie betwixt that and the Glaſs, which will cauſe Bliſters, and which you muſt be very careful to ſtroak out. If it ſhall happen that you have not laid the Print exactly even upon the Glaſs, then, by warming the Foreſide of the Glaſs before the Fire, it will ſo ſoften and thin the Turpentine, that you may, with Care, take it off again immediately, not ſuffering the Print to dry. Your Print being laid upon your Glaſs in the moſt exact Manner, you ſhould now proceed to rub it with your Finger, in order to rub off all the Thickneſs of the Paper, which will come off in little Rolls till nothing of it is left upon the Glaſs, but a little Film, like a Cobweb, that is faſt ſtuck to the Glaſs by the Turpentine; but great Care is to be taken in Rubbing, that you make not Holes in the Print, eſpecially in the Lights, which are the moſt tender Parts. If your Picture be large, ſo that ſome Part of the Paper ſhall become dry, while you are rubbing the other, you ſhould, with a little Water on your Finger, wet them as you ſee Occaſion, to keep them moiſt, for the Paper will not rub when grown dry. When you have peeled it all over, till the Print appears tranſparent on the Backſide, then ſet it up to dry for four Hours; after which, varniſh it over with Maſtick Varniſh, or Turpentine Varniſh, four or five

times, or ſo often till you can ſee clearly thro' it; and after 24 Hours, you may proceed to painting it.

Inſtructions for painting the above-mention'd Prints —The painting of Mezzo-Tinto Prints is perform'd with Colours either opake, or tranſparent. The tranſparent Colours are chiefly Carmine, fine Lake, brown Pink, fine Smalt, diſtilled Verdigreaſe, and Ultramarine. The opake Colours are Flake-white, yellow, or Dutch Pink, light and brown Red, Terra-vert, Umber, Cologn-earth, Ivory-black, Vermillion, Blue-bice, Maſticote, yellow and pale-red Orpiment. All tranſparent Colours muſt be ground with Nut-Oil; opake Colours with Gum-Water, ſome with Gold Size, and ſome with Linſeed-Oil, and Drying-Oil.

How to ſilver Looking-Glaſſes — A thin Blotting-Paper is ſpread on a Table, or ſmooth Stone, and ſprinkled with fine Chalk; and then a fine Lamina, or Leaf of Tin (call'd Foil) is laid over the Paper; upon this Mercury is poured, which is equally to be diſtributed over the Leaf with a Hare's Foot, or Cotton: Over the Leaf is laid a clean Paper, and over that the Glaſs Plate; the Glaſs Plate is preſſed down with one Hand, and the Paper drawn gently out with the other; this done, the Plate is covered with a thicker Paper, and loaden with a great Weight, in order to force out the ſuperfluous Mercury, and make the Plate adhere to the Tin. When it is dried, the Weight is removed, and the Looking-Glaſs compleat.

The Lady York's choice Receipt to preſerve from the Small-Pox, Plague, &c. — Take Garlick three Heads, Eſſence of Wormwood one Drachm; let them infuſe twelve Hours in four Ounces of white Wine, and drink the Liquor before you go near the Infected; and afterwards the ſaid Lady affirms, you may go with Safety amongſt them.

Excellent

Excellent Method of cleaning any Kind of Glaſs—Firſt rub the Glaſs well with Snuffs of Candles; clean it well from this, and rub it well over with good ſoft Lead. You are to rub laſtly with Buff-Leather, and your Work will look very beautiful. By Le St. Jean.

Againſt Moths, Worms, &c.—Dry the Herb Botris, ſtrew it among your Cloths, and neither Moth nor Worm comes near them.

To prevent the ſmoaking of Lamp-Oil—Steep your Match, or Cotton, in Vinegar, and dry it well before you uſe it. Many Families have ſpoke much in Praiſe of this.

The excellent royal liquid Blacking—Mix a ſufficient Quantity of good Lamp-black with an Egg, to give it a good Black; then take a Piece of Spong, dip it therein, and rub over Shoes, *&c.* very thin; when dry, rub them with a hard Bruſh, and they will look very beautiful. You are to take Care the Shoes are firſt well cleaned with a hard Bruſh, otherwiſe they will not look near ſo beautiful.

Ague ſpeedily cured—Wear the Leaves of Lignum-Vitæ under your Feet a few Days, and a Cure ſoon follows. This Receipt from a Divine.

Admirable Cure for Worms in Old and Young—You are to melt fine Tin ſeveral Times, and every Time quench it in Spring-Water, and this you are to drink as your common Drink. It is a ſafe and never-failing Remedy againſt thoſe dangerous Vermin in Young or Old. By Dr. Sewell.

Admirable Way of cleaning Silver Plate—Put your Plate into ſome ſtrong Lee, made of Pearl-Aſhes, wherein half an Ounce of Cream of Tartar, and the like Quantity of Allum has been diſſolved. Set it over the Fire, let it boil five or ſix Minutes; then take out your Plate, let it dry either in the Sun, or

by

by a Fire, and afterwards rub it with a ſoft Leather and Aſhes of burnt Wheat Straw. By this Means, the Plate looks like new, and remains ſo a long Time. But where Time won't permit to do as above directed, you may clean with the Aſhes only.

To clean Jewels, Pearl, &c. — There is Nothing cleans any Kind of Jewels like exceeding fine Smalt and Emery. You are to dip a fine Tooth-Bruſh into theſe two Powders (mix'd together) and rub the Jewels therewith. Both Powders muſt be well dry'd. Pearls are to be waſhed with a ſtrong Lee of burnt Tartar, and boil'd upon a warm Stove.

To clean old Silver Lace — Take Powder of Alablaſter, put it into a dry Pipkin, and let it boil a Quarter of an Hour; then take it off the Fire, and, when cold, lay your Lace upon a Cloth, and with a Comb-Bruſh, take up ſome of that Powder and rub the Lace therewith on both Sides. Ox-Gall, or the Gall of a Jack, mixed with Water, is very ſerviceable in cleaning either Gold or Silver Lace.

To make excellent Vinegar of Malt-Liquor — To every 20 Gallons of Liquor, add one Ounce of Cream of Tartar, and the like Quantity of Allum and Bay-Salt; mix theſe with a Gallon of the Drink, boiling hot, and put it hot into the Caſk, cover the Bung-hole with a Piece of brown Paper, and it will be fine Vinegar in a few Days. This Receipt has been often ſold for five Shillings.

Dr. Dover's excellent Cure for the Itch — Sweet Sublimate one Drachm, Cream of Tartar one Ounce. Let theſe infuſe two or three Days in a Pint of Spring-Water; then bathe the Parts broke out therewith, Morning and Evening, for four or five Days, and the Cure will be completed. This is not only very effectual in curing, but very ſafe, cheap and clean. Bleeding is very neceſſary in this Diſorder. N.B. This

is the chymical Lotion advertiſed at 1*s.* 6*d.* the Bottle, which contains little more than a Quarter of a Pint; here you have a Pint for three Pence, which is the Charge of the two Ingredients.

Spots very effectually taken out of either Silk, Linnen, or Woollen.—Spirits of Turpentine twelve Drops, and the ſame Quantity of Spirits of Wine; grind theſe with an Ounce of Pipe Maker's Clay, and rub the Spots therewith: You are to wet the Compoſition, when you rub either Silk, Linnen, or Woollen with it, let it remain till dry; then rub it off, and the Spot or Spots will diſappear. The ingenious Dr. Godfrey, ſays, that true Spirits of Salt is the only Thing to remove Iron-moulds from Linnen; and Sal Almoniac, with Lime, takes out the Stains of Wine.

Warts or Corns ſpeedily deſtroy'd—Rub them with Juice of Houſe-Leak and Celandine twice a Day for a Week, and you may depend on getting rid of them: If the Corns are firſt cut as cloſe as the Perſon can bear, they will be the ſooner deſtroyed. Multitudes have been taken away by only binding a ſingle Leaf of Houſe-Leak over each Corn, and this in four or five Days, and without the leaſt Pain. I have received innumerable Letters of Thanks for this Article.

Chineſe Method of mending China—Boil a Piece of white Flint-Glaſs in River Water five or ſix Minutes; beat it to fine Powder, and grind it well with the White of an Egg, and it joins China (without rivetting) ſo that no Art can break it again in the ſame Place. You are to obſerve, the Compoſition is to be ground extremely fine, on a Painter's Stone; This by the Royal Academy of Sciences; their laſt Prize Secret.

The moſt excellent Method of Fining or Reſtoring Malt Liquors—Firſt put a Piece of Lime (about two

(Pounds

Pounds) into a Hogſhead of either Ale or Beer, and the like Quantity of good Chalk; then toaſt a thick Lump of Wheaten Bread (a Pound at leaſt) very hard, put it into your Caſk, when cold, to the other Ingredients, and your Drink will be exceeding fine in two or three Days. Note, If ſour, it will reſtore it to its firſt Perfection. But, to prevent Malt Liquor being either foul, or ſour, ſee that your Caſks are very dry, and ſweet, before you fill them; and, to every thirty Gallons of Liquor, put one Pound of Chalk, the like Quantity of unſlack'd Lime, and about a Pound of Wheaten Bread, burnt hard; put all theſe (whole) into your Caſk.; and your Liquor will be ſecure, and exceeding fine, tho' the Weather be ever ſo changeable.

To clean Ribbons, &c.— Ribbons are to be firſt clean waſh'd, then boiled in ſoft Water and Bran for a Quarter of an Hour; afterwards waſh them in Soap-ſuds, wherein a few Drops of Spirits of Wine has been put; when clean, rince them, and dry them in the Shade; iron them with a moderate hot Heater, and they will look very beautiful. Scarlet Cloaks are done the ſame Way, only Hot-preſſing does better than Ironing.

A ſure and ſpeedy Cure for the Scurvy— Drink plentifully of Whey, with Juice of Elder-Flowers in it, and a Cure will ſoon be completed.

Excellent true Britiſh Ketchup— Take green Walnuts, beat them in a Marble Mortar, and ſtrain out the Juice, let it ſtand twelve Hours, then take a Quart of the Juice that's fine, ſix Britiſh Herrings, and a little of the Herring Pickle, cut the Herrings ſmall, and put 'em in a Pan, and add to 'em a little Mace, about twenty Cloves, and half an Ounce of Jamaica Pepper; boil all together on a ſlow Fire, for half an Hour, then ſtrain it through a Cloth, put it again into

into the Pan, and add to it twenty or thirty Shellots, and half a Pint of Vinegar, let it boil till the Shellots be tender, then put it in a Baſon to cool, and when cold, let it run through a cloſe Cloth of its own Accord, and it will take off all the Scum and Fat; bottle it for Uſe. If green Walnuts are not to be had, make Uſe of a Pint of Walnut-Pickle; but in this Caſe the Vinegar is to be omitted.

French Way of waſhing fine Lace, or Linnen—Take a Gallon of Furz-Bloſſoms, and burn them to Aſhes; then boil them in ſix Quarts of ſoft Water; this, when fine, you are to uſe in Waſhing, with your Suds, as Occaſion requires, and you will have the Linnen *&c.* not only exceeding white, but it is done with Half the Soap, and little Trouble. This is verbatim from the Paris Magazine.

Infallible Cure for a Whitlow — Steep it in diſtill'd Vinegar, hot as you can bear it, four ar five Times a Day for too Days ſucceſſively; then moiſten a Leaf of Tobacco in the ſaid Vinegar, bind it round the Part grieved, and a Cure ſoon follows.

Quick Cure for Colds, Weakneſſes, and ſome conſumptive Caſes— Drink plentifully of Marſhmellow-Tea, twice a Day, till you find the Diſorder abated. This Tea is admirable in the Gravel; but then you may add thereto a few Drops of Spirits of Nitre.

How to recover black Cloth that is faded—Take Fig-Tree Leaves, boil them well in Water, waſh your Cloth in it, Milk-warm, dry it in the Sun, and it will prove an excellent Black.

How to make Braſs of a true Gold Colour—Take Sal Armoniac, mingle it in a Mortar, with Spittle, till it becomes like a liquid Ointment; rub the Braſs with it, put it on hot Coals, and, when dryed, rub it well with a Linnen Cloth, and it will be of a beautiful golden Colour.

How to give gilded Work a fine Colour—Take clean Salt and Brimſtome, boil them together, with a little Water, in an Egg-Shell, after taking away the inſide Film; take care you do not give it too much Fire to burn the Shell; you are to rub this Liquid over your Gilding, and you will be well pleaſed with its Effect.

Method of raiſing Muſhrooms—Mr. Tournefort gives us a very curious Account of their Culture, in the Memoirs of the Royal Academy, the Subſtance of which is as follows. All the Secret of raſing Muſhrooms ſpeedily and in Abundance, conſiſts in ranging Balls of Horſe Dung, about the Bigneſs of your Fiſt, in Lines, at the Diſtance of three or four Feet from each other, and at the Depth of one Foot under Ground, and covering theſe over with Mould, and that again with Horſe Dung. If this be done in April, in the Beginning of Auguſt the Pieces of Dung will begin to whiten, and grow mouldy, being all covered with little Hairs, or fine white Threads, branched, and woven about the Straws whereof the Dung is compoſed. The Dung now looſes its former excrementitious Smell, and ſpreads an admirable Odour of Muſhrooms; and great Plenty are to be gathered from theſe Beds for four or five Years, without further Trouble.

The famous Snuff for the Head and Eyes, (by the Venders called Royal)—Take any Quantity of Aſſarabecca (otherwiſe Aſſarum) Leaves; dry them by a gentle Fire, and afterwards grind them into a fine Powder. In moſt Diſorders of the Head this Snuff does Wonders; and would undoubtedly have gained an eſtabliſhed Reputation long ago, had not thoſe Gentlemen, &c. who aſſume to themſelves the Title of Inventors, made this Snuff as univerſal a Specific as moſt of their other Articles; *i. e.* to cure every Diſorder;

Diſorder; as well a broken Shin, as a ſore Eye. But to give it it's due Character, nothing exceeds it for Diſorders in the Head, ſuch as Head-ach, Ear-ach, Sore-eyes, Tooth-ach, Deafneſs, &c. It is a fat, ſhining Leaf, only one on a Stalk, ſhap'd much like Ground-Ivy, and is found near Woods, in damp, ſhady Places. Take a Pinch twice a Week at Night, going to Bed: It does not operate immediately, like the common Snuffs; but the Morning after taking it, a foul Matter is diſcharged at the Noſe, more or leſs, according to the Degree of the Illneſs. Many People get a Livelihood by the Sale of this Snuff; they ſelling only ſix Pinches for a Shilling, and have a Patent for their Sanction.

To ſtain Pear-Tree Picture-Frames a good Black— Boil Chip Logwood in clear Water, and rub the Frame three or four Times over with it when hot; ſcour it when dry with Sand-Paper; then give it two Waſhes with Tincture of Steel; Laſtly, clean it with a Linnen Cloth and Bees Wax, and it will be a beautiful Black.

To ſoften Ivory or Bones— Lay it for twelve Hours in Aqua Fortis, then three Days in the Juice of Beets, and it will become tender, and you may work it into what Form you pleaſe. To harden it again, lay it in ſtrong Vinegar.

To ſtop bleeding at the Noſe— Rub the Noſtrils with Juice of Nettles, or young Nettles bruiſed.

To make a fine Green Colour—Take a Quarter of a Pound of common Verdigreaſe, beat it till it be as ſmall as Duſt; put it into a Pipkin, along with a Pint of white Wine Vinegar; then add a little white Argol in Powder. Boil all over a gentle Fire, keeping it ſtirring till the Verdigreaſe be diſſolved.

A curious Experiment by Convex, or Plano-convex Glaſſes— Make Choice of a Room that hath a North Light

Light (tho' an Eaſt or Weſt may do very well) and let it be made ſo dark, that no Light can come in but at the Hole where your Glaſs is to be placed; then make a Hole in the Shutter, about an Inch in Diameter, or ſomething more, and ſet open the Caſement, if there be one, for there muſt be no Glaſs beyond the Hole; then faſten the Glaſs with its Centre to the Centre of the Hole, and at the Diſtance your Glaſs draws, hang up a white Sheet, then will whatever is without the Hole, and oppoſite to it, be repreſented in the Sheet with ſuch exquiſite Exactneſs, as far ſurpaſſes the utmoſt Skill of any Painter; for if the Sun ſhines brightly on the Objects, you will have the Colour of all Things in their natural Paint; but if the Sun does not ſhine, the Colours will be hardly viſible; and you muſt, by all means prevent the Sun's ſhining near the Hole, for then all Things will be confus'd. Obſerve, that all Things appear inverted upon the Sheet; to remedy which, take a common Looking-Glaſs, of twelve or fourteen Inches ſquare, and hold it near or under the Chin, with an acute Angle to the Breaſt, and look down into it, and every Thing will appear in their natural and erect Poſitions; and this Reflection alſo from the Glaſs, gives it a Glaringneſs that is very ſurprizing, and makes it look like ſome magical Proſpect.

To make Amber Varniſh— Take a Pound of powdered Amber, melt it in an unglaz'd Veſſel over a Charcoal-Fire, and pour it, whilſt fluid, upon an Iron Plate; then powder it again when concreted, and afterwards diſſolve it entirely in an unglaz'd Veſſel of Earth, adding firſt to it Linſeed Oil prepared and boiled with Letharge, and afterwards Spirit of Turpentine. With this incruſt your Veſſels of Wood, or Metals, and afterwards poliſh them, being firſt carefully and artfully dried.

The Tea-Tree; its Growth in England; first Diſcovery by Chance, by the late ingenious James Macdonald, M. D. — When I ſay a Thing happens by Chance, I mean no more, than that its Cauſe is unknown: I am not ſo vain as to imagine that Chance itſelf can be the Cauſe of any Thing. The Caſe of the Painter, who unable to expreſs the Foam at the Mouth of a Horſe he had painted, threw his Sponge, in Deſpair, at the Piece, and, *by Chance*, did that which he could not before do by Deſign, is an eminent Inſtance of the Force of Chance. It is obvious what is here meant *by Chance*, that the Painter was not aware of the Effect; or that he did not throw the Sponge with ſuch a View: It is much the ſame Caſe with Regard to the Point I have in Hand: I ſhould inform the Reader, that having accidentally *(or by Chance)* put a ſmall Quantity of Arrack into a Cup wherein was about the Third of an Ounce of Green Tea; in about nine Weeks after, to my very great Surprize, I found the Cup ornamented with a Kind of buſhy Shrub, nearly reſembling the Print annexed.

It is not very material whether I acquaint the Reader that I ſet out for the South of France the very Morning I put the Liquid to the Tea; but ſo

it happen'd; and, on my Return, found it in the Condition I have already mention'd. I knew I left nothing of the Garden Kind in this Apartment, and muſt own I was ſurpriz'd to find one there: I made Enquiry among my Servants, and found them as ignorant of the Cauſe as myſelf. At length, a Relation, who breakfaſted with me the Morning I put the Spirits to the Tea, re-minded me of it; and now I was ſatisfy'd how I came by my Curioſity. I began to inſpect into my little Shrub more nicely; drew it from the Cup, and found the Moiſture quite ſpent: On my removing it, a Leaf and two ſmall kind of Berries dropp'd from the Shrub. It appear'd to be in a declining State, and the Moiſture quite exhauſted. I communicated the Affair to Sir *H. S.* and we jointly try'd various Means to bring the Shrub to a greater Perfection; we buſy'd ourſelves for two Years; Variety of Means were us'd to gain our Point; ſometimes in Hope, at others in Deſpair. It would tire the Patience of the Reader to relate the various Means made uſe of to gain our Point; let it ſuffice, to give a Relation of the Perfection we have brought it to. Fill a Pot with equal Parts of Pidgeon's and Sheep's Dung, well dry'd, ſifted and mix'd; then put therein thirty or forty of the Berries you find in good Tea, of either Kind, and water it Morning and Evening with Lime-Water, wherein a few Drops of Spirits of Nitre and Arrack have been put, and by this Means you will find it bud in about a Fortnight, and continue its Growth, in extreme hot Weather, near as faſt as Mint. Continue watering as above directed: When ripe, the Leaves will looſe their fine Green, and begin to fall; but you are now to gather them, dry them in the Sun, and it will be as good as the Tea it was taken from. This, I dare aver, is the greateſt Perfection the Growth of

Tea

Tea was ever brought to in England. In Japan and Siam, this Tree, or Shrub, affects Valleys, and the Feet of Mountains, in a ſtony Soil. Its Seed is uſually ſown in Places expoſed to the South, and bears three Years after ſown. The Root reſembles that of the Peach-Tree; the Leaves are green, longiſh at the Point, and pretty narrow, an Inch an Half long, and jagged all round. The Flower is much like that of the wild Roſe; the Fruit of different Forms, ſometimes round, ſometimes long, ſometimes triangular; of the ordinary Size of a Bean; containing two or three Peas, of a Mouſe-colour, including each a Kernel; which Peas are the Seeds by which the Plant is propagated. The Tree is of various Heights, from one Foot to an hundred; ſome there are, which two Men cannot fathom; while others ſcarce exceed the feebleſt Shrub in a Garden. The beſt Time to gather the Leaves of Tea is while they are yet ſmall, young and juicy; and that Tea is beſt that is ſmalleſt, moſt brittle (when dry'd) and lively colour'd.

Birdlime; *its Preparation and Uſe* — It is a viſcid Subſtance, prepared various Ways, and from various Materials; and is uſed in catching Birds, Mice, and other Vermin: That commonly uſed is made from Holly-Bark, boil'd ten or twelve Hours; when, the green Coat being ſeparated from the other, it is cover'd up a Fortnight in a moiſt Place, and then pounded into a tough Paſte, that no Fibres of the Wood is left, and waſhed in a running Stream till no Motes appear; then put it to ferment four or five Days, and ſkim it as often as any Thing ariſes. It may then be laid up for Uſe; in uſing it, a third Part of Nut-Oil, or any thin Greaſe, is incorporated with it over the Fire.

Lime-Water; *its Uſe, and ſurprizing Effects on the Human Body* — It is undoubtedly an excellent Re-

medy taken internally; a powerful Alterant, and like a pure alkaline Water, fitter to blunt and deſtroy acid Ferments, which are the Principles of all Obſtructions, and the Cauſe of moſt chronick Diſeaſes. It is remarkably ſerviceable in Cachexies, Green-Sickneſs, Dropſy, Scurvy, Obſtructions of the Liver, Spleen, *&c.* It ſtrengthens the Stomach, increaſes the Appetite, and cauſes a good Digeſtion; wonderfully cleanſes the Blood, chears the Heart, revives the Spirits, and ſtrengthens the whole Body: It is a moſt egregious Deopilative, and momentarily opens all Obſtructions in the Stomach, Gall, Meſentery, Womb, Hypochondria, Bowels, Reins, and Bladder, and other organick Parts; diſſolving and carrying off the cold, acid, and viſcous Humours ſticking to the Tunicles of the Lungs, Stomach, Guts, &c. cauſing almoſt all Diſeaſes incident to Men, Women, and Children; preſently taking away all their Faintneſs, Weakneſs, and Indiſpoſition; inſomuch that thoſe who look like Death itſelf, and are ſcarcely able to go or ſtir about, it gives immediate Relief to; and proves itſelf to be almoſt a Miracle of Medicine. Drink half a Pint Morning and Evening. It is made thus: Put three Wine Quarts of hot Water on one Pound of quick Lime; let it macerate for the Space of 24 Hours, and it is fit for Uſe.

The uſeful, new-invented Black-lead Pencil; from the Paris A-la-main — Take what Quantity you think proper of Red-Lead, melt the Metal from it, and then bury the Lead in freſh Horſe-Dung for twelve Days. It may afterwards be made up for Uſe. This is ſign'd F. Reay.

Red Hair chang'd to a beautiful Brown — Black-Lead, and Black-Ebony-Shavings, one Ounce each; let theſe boil an Hour in a Pint of clear Water;

when

when fine, bottle it for Uſe. You are to wet a Comb in the Liquid, and comb your Hair often therewith. To make the Hair black, add two Dr. of Camphire to the Ingredients. This is the Liquid for changing Hair advertis'd at Half a Guinea a Bottle.

New Diſcoveries on Bees, of keeping them in Health and Vigour, and of increaſing them — The following Obſervations are the Fruits of 25 Years diligent Labour and Attention, and I flatter myſelf, that ſome of them will be found new and intereſting. When the Trees begin to bloom, and the Flowers to diſplay their Sweets, the diligent Bee uſually commences its Forages on every Tree and Flower which yields a proper Aliment. Then take an old Hive, with Remains of the Comb on the Sides, or, if it has none, place ſome Shreds of Wax towards the Roof of the Hives in ſeveral Places, and hold them a while over lighted Straw, that they may melt and ſpread about; you will find the Bees to work in ſuch a hive preferably to another, and that they will immediately build upon this Ground of Wax, which you have laid, that which they have gathered. Obſerve, that when there is a great deal of Wax, they lay it on towards the Centre, and when a little, on the Sides; they build their Comb perpendicularly from the Roof to the Floor, which the Heat increaſing towards the Bottom of the Hive, renders their Wax quite ſoft. They will not only make their ſymetrical Cells with the Wax of their own gathering, but alſo with that which has been ſupplied to them; this I know by frequent Experience, having laid a Piece of Wax in the Hive, and ſoon after nothing of it was to be ſeen. How much Wax a Bee can carry at once may be ſeen, eſpecially in the firſt Week's Work of a new Swarm appointed to form

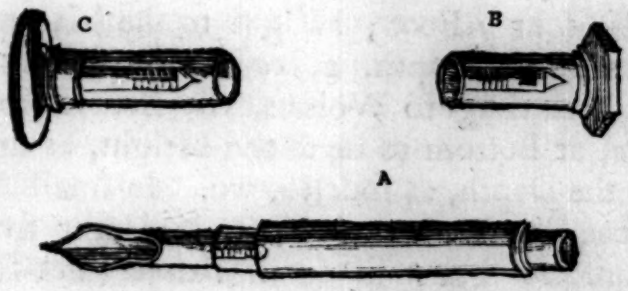
the Comb; in which they are ſo diligent, that they often drop ſomewhat of what they are bringing before they have ſecured it; and the Particles they thus drop are not unlike that kind of Duſt which comes from Birds Feathers, except that they are whiter and more gloſſey. The young Swarms don't work at the Comb above a Fortnight, and if in the Interim foul Weather ſhould hinder their Forages, they ſpare neither their Works nor their Honey; but in a Courſe of fine Weather, they run up their Building with a ſurprizing Celerity. In our Northern Climates four Months is all the Space that they work at the Honey, which is made at their Hives, whether it be little or much; but in hot Countries they have nine working Months. In the Months of February and March they may indeed gather from the Nut-Trees and other Shrubs, wherewith to make their Comb; and if they ſhould meet with any Bloſſom, any Drop of Honey on the Gooſberry and Currant-Buſhes, they either uſe it themſelves, or give it to their Young, which yet is far ſhort of being a ſufficient Nouriſhment; but in the Months of April or May, when the Trees are in Bloſſom, they then find all the neceſſary Materials both for their Structures and Honey; the Months of June and July are the moſt favourable; the wild and Garden Flowers, Trefoil, Oats, Barley, Peas, Vetches, and Cockle, from which they draw their beſt Honey and Nutriment, opening all their Treaſures to them: In thoſe Years when Cockle and Trefoil are ſcarce, no Swarm is produced, but with a Plenty of theſe two Herbs, there never wants a Plenty of Honey, and numerous Swarms. Bees extract their Honey from all ſweet-ſmelling Flowers, as Roſes, Pinks, Violets, Orange and Lemon Flowers, and all other within their Reach: In red Trefoils they are prevented by the Drones, who chiefly furniſh themſelves

themſelves with Honey from thence; but they make themſelves Amends by ſcouring the Country, where, to any other Flowers they prefer the Tops of Turnips and Radiſhes, Cabbages and Coliflowers, &c. and when all theſe fail them, they fall upon the Branches and Flowers of Pumpkins, where they diſguiſe themſelves ſo as to loſe the Appearance of Bees. Bees are known to nouriſh themſelves with the Juices of Flowers, which being convey'd into their little Bladders, is depoſited in their Cells, and cloſely covered with quite another Subſtance, as their Autumn and Winter Store. I have obſerved them to be very fond of the farinous Dew, which falls after the Sun is above the Horizon, and is ſometimes perceived to ſparkle on Oak and Plumb-Tree Leaves; and one of theſe Leaves being put to the Tongue, one taſtes Liquor as ſweet as Honey; and this Liquor it is which, ripening in the Cells, becomes Honey: If a Bee at its Return be taken and opened, in its Bladder will be found a ſweet Juice, almoſt as liquid as Water; for did Bees ſip common Water, how would they refreſh themſelves in Winter, when confined within Doors? The beſt Weather for Bees is when it is hot and calm, with copious Dews; two much Drought exhauſt the Flowers, and too much Wet hinders the Bees from their Excurſions from making Swarms, and beſides fills the Flowers with Water; in a warm Spring they ravage the Buds of Hazles and Poplars, not that what they thus gather, and bring home about their Hinder-legs, ſerve them for Food, but they uſe it for hatching their Young. A great deal of this is found in Summer-time in the Hives; but if the Hives be opened, and cleared in Autumn or Winter, or as is our Cuſtom, in Spring, little or none is found; it is bitter, ſo that it cannot be any Aliment to the Bees, accordingly it is left un-

touched in the Cells under any Extremities; however it is ſo conducing to their Increaſe, that if they have Plenty of it, a forward and numerous Swarm may be depended on. Broom is ſo great a Dainty among Bees, that they ſpare no Pains in traverſing Woods and Heaths in queſt of it. The chief Cauſe of Wars among Bees, as among Men, beſides their natural Avidity, is Injuſtice and Violence; thus when they obſerve that it is hot Weather, and that their Forages do not anſwer, they cruize about for Hives at a Diſtance from their own, ſeldom aſſaulting any in the Neighbourhood. They are alſo wiſe enough not to meddle with any that are ſtrongly garriſoned, but where they apprehend a Weakneſs, they then attempt to force an Entrance; if repulſed, they fly away for a Reinforcement, that is, they retreat and return in greater Numbers to their Attacks, which are ſo vigorous, and their Hive ſo ſtrongly defended, that the Entrance of the Hive is covered with the Slain. It is obſervable, that if the Queen, either of the Beſieger, or Beſieged, falls in the Action, the War is immediately at an End, the Field of Battle is given up to the Enemies, a Diviſion of their Stores is made with them, and the Bees of the Hive either quit their antient Habitation, or a Coalition is made betwixt both Parties, to be but one People under the ſame Government. As ſome Prevention of the Devaſtation of theſe Wars, the Hive muſt be opened after their Return from the Battle, and the Remainder of the Honey taken out, that it may not be pillaged by the Enemy. Another Cauſe of theſe Wars is, when a Hive has been carried by the Enemies, the Bees, upon their Expulſion, attacking other Hives for a Settlement; for they never unite with their Enemies, unleſs upon the Loſs of their Queen, while ſhe remains they adhere to her, and never ſubmit to a foreign

foreign Yoke. Three Years ſucceſſively my Hive had been attacked by new Swarms, as Emigrants, ſome have periſhed in the Enterprize, and others have been admitted to the Community. I remember one Day going to look upon my Hives, I found ſome of them beſieged by a prodigious Number of Bees, with a great Humming in the Air; I concluded, that theſe were Invaders, and the rather as my Hives had been cleared but a little before, and my Bees conſequently could not have produced new Swarms. I left them to fight it out, not returning till towards Night, thinking by that Time Victory had declared itſelf on one Side or other, and accordingly I heard no Humming, but at the Entrance of one Hive, which I lifted up to examine into the State of Affairs, then I plainly ſaw that a Swarm had ſettled itſelf among my Bees, for the Hive was ſo filled, that there was no Room to put one Finger in; they live together in Harmony, uniting Forces to build the Comb, and in Whitſun-Holidays produced a new Swarm.

The Expeditious, or Fountain-Pen; its Make and Uſe — This Pen is ſo contriv'd, as to contain a great



Quantity of Ink, and let it flow by gentle Degrees, ſo as to ſupply the Writer a long Time, without a Neceſſity of taking freſh Ink, and is held in great Eſteem amongſt expeditious Writers. It conſiſts of

divers

divers Pieces, A, B, C, of either Tin, or Braſs; whereof the Middle-Piece A carries the Pen, which is ſcrew'd into the Inſide of a little Pipe; which again is ſolder'd to another Pipe, of the ſame Bigneſs as the Lid B; in which Lid is ſolder'd a Male-Screw, for ſcrewing on the Cover; as alſo for ſtopping a little Hole at the Place, and hindering the Ink from paſſing through it. At the other End of the Piece A is a little Pipe, on the Outſide whereof the Top Cover C may be ſcrew'd. In the Cover there goes a Port-crajon, to be ſcrew'd into the laſt mention'd Pipe, in order to ſtop the End of the Pipe, into which the Ink is to be poured by a Funnel. To uſe the Pen, the Cover B muſt be taken off, and the Pen a little ſhaken, to make the Ink run more freely.

Chimney; its beſt Form and Situation; and ſure Method to prevent Smoaking — The Parts of a Chimney are the Jambs or Sides, the Back or Hood; the Mantle-tree, reſting on the Jambs; the Tube or Funnel, which conveys away the Smoke; the Chimney-Piece or Moulding, on the Foreſide of the Jambs over the Mantle-tree; and the Hearth or Fire-place. Palladio gives Directions for forming a Chamber-Chimney after this Manner: Breadth on the Inſide, 5 1 Half, 6 or 7 Foot; Height to the Mantle-tree, 4, or 4 1 Half; Depth, 2, or 2 1 Half Foot.

And, according to Wolfius, the Breadth of the Aperture, at Bottom to be to the Height, as three to two, to the Depth, as four to two. In ſmall Apartments, the Breadth is three Foot, in larger five; in Bed-Chambers four; in ſmall Banquetting-Rooms five 1 Half, in large ſix: But the Height never to exceed two 1 Half, leſt there be too much Room for the Air and Wind, whereby the Smoke be driven down into the Room. Nor muſt the Height be too little, leſt the Smoke miſs its Way, and be check'd

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at firſt ſetting out. The ſame Author adviſes to have an Aperture, thro' which the external Air may, on Occaſion, be let into the Flame, to drive up the Smoke; which the internal Air would otherwiſe be unable to do. The Mouth of the Tube, or that Part joined to the Chimney-Back, Felibien orders to be a little narrower than the reſt (and he is joined herein by Palladio, and other great Maſters in the Art of Building) that the Smoke coming to be repelled downwards, and meeting with this Obſtacle, may be prevented from getting into the Room. Many Builders make the Funnel twiſted, to prevent the Smoke's deſcending too eaſily: But the ſurer Expedient is to make the Funnel narrower at Bottom than at Top; the Fire impelling it upward more eaſily when contracted at Bottom; and in mounting, it finds more Space to diſengage itſelf, and therefore is not ſo apt to return into the Chamber. M. Lucar adviſes two Holes, or two Pipes, one over the other, to be left in each Side of the Chimney; one ſloping upwards, the other downwards; and thro' one of theſe, ſays he, the Smoke cannot fail of paſſing in any Poſition. He goes on in giving a great Number of Inſtances of Chimneys built in this Manner, and abſolutely affirms, that they were all capable of diſcharging more than four times the Smoke that could poſſibly be produc'd in any one Chimney. De l'Orme orders a Braſs Ball full of Water, with one ſmall Aperture, to be hung up in the Chimney, a little above the Height of the greateſt Flame: Here, as the Water grows hot, it will rarefy, and drive thro' the Aperture in a vapoury Stream, which will drive up the Smoke that would otherwiſe linger in the Funnel. In ſhort, ſmoaking Chimneys have prov'd ſo extremely troubleſome, that it has long employ'd ſeveral eminent Men, of our own and other Nations,

to find out a Remedy for this great Evil; for the Cure of which we are greatly oblig'd to the late ingenious Dr. Diſaguliers. He ſays, that the Engine invented by Monſieur Daleſme, conſumes the Smoke of all Sorts of Wood, and that ſo totally, as the moſt curious Eye cannot diſcover it in the Room, nor the niceſt Noſe ſmell it, tho' the Fire be made in the Middle of the Room. This Engine conſiſts of ſeveral Iron Hoops, four or five Inches Diameter, which ſhut into one another; and this is placed on a Trevet. Monſieur Daleſme affirms, it will immediately diſperſe the Smoke and Smell from the moſt fœtid Things, as a Coal ſteep'd in Cat's Piſs, &c. which ſtinks abominably when taken out of the Fire. And Dr. Diſaguliers ſo greatly approv'd of this Engine, that he, in ſome Caſes, gave it the Preference to the Machine of his own Invention; which was to fix one or two Trunks in a Chimney (a little above the Part the Flame commonly aſcends to) according to the Size of the Chimney, and Quantity of Fire conſum'd therein. Theſe Trunks are to be cut at the Part next the Fire, in the Manner of the End of a Flute the Performer puts to his Mouth when he is playing, as deſcrib'd by the Figure. It is, in ſmall Fire-Places, to be left open at the End, about an Inch; and in large ones two Inches, and ſhould have a Bolt, (as at A in the Fig.) or Slider, to ſlip backwards or forwards, as Occaſion requires.

For Inſtance; in Caſe the Fire is clear, the Bolt, or Bolts, may be both clos'd; becauſe, were they open

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at this Time, it would be a Means of cauſing a larger Fire than might be requir'd, occaſion'd by the extraordinary Draught; but, where the Fire is dull and ſmoaky, the Bolt may be open'd more or leſs to diſcharge the Smoke that otherwiſe might become troubleſome; and this it will do, let the Quantity be ever ſo great, or the Quality ever ſo diſagreeable. There have been a Multitude of Experiments to prove the Efficacy of theſe kind of Trunks: Suppoſing a Room to be filled with Smoke of the moſt troubleſome Kind, and that the End of one of theſe Trunks was let into the Room thus fill'd with Smoke (by making a Hole in the Wall) in ſuch Caſe, the Smoke would be drawn off in leſs than a Minute's Time. But it muſt be obſerved, that the Trunk ſhould be at leaſt a Yard and Half long, about four Inches ſquare Inſide, and the Slit, or Mouth, in the Room, full two Inches wide.

Fire-Eating, &c. by what Means it is perform'd— As we have lately had ſeveral who have procur'd the Attention and Wonder of the Publick by eating Fire, walking on Fire, waſhing their Hands in melted Lead, &c. I imagine it will not be diſagreeable to inform my Readers by what Means theſe (ſeeming) ſurprizing Feats are done, which I have from the Journal des Scavans, in the following Words: Mr. Richardſon's (a very celebrated Fire-Eater) Secret conſiſted in a pure Spirit of Sulphur, wherewith he rubbed his Hands, and the Parts that were to touch the Fire; which burning and cauterizing the Epidermis, hardened and enabled the Skin to reſiſt the Fire. And Amb. Paré aſſures us, he had tried on himſelf, that after waſhing the Hands, or other Parts, in a Perſon's own Urine, or with Unguentum Aureum, any one may ſafely waſh them in melted Lead. He adds, that by only waſhing his Hands in the Juice

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of Onions, he could bear a red-hot Shovel on them; while it diſtilled Lard. And this correſponds exactly with the Practice of the modern Race of Fire-Eaters.

Singing Birds; the Way to bring them to a great Perfection, by that famous German, Lewis de Burgh.— There is neither Lark, Linnet, Bull-Finch, nor Gold-Finch, ſays this famous foreign Bird-Fancier, but what is to be brought to as great a Perfection in Song as the Canary-Bird: Though the Engliſh will not take the Pains a German does; they love to ſleep, while the German is tuning his Pipe, and inſtructing the feather'd Songſter. There is more to be done with the Lark from two to three o'Clock, than can be done in many Months in the Day-time, or when the leaſt Noiſe, or Sound, is to be heard but from the Inſtructor: Every Thing ſhould be quiet but the Maſter; as it is with the human Kind, ſo it is with the Feather'd; a good Maſter often makes a good Scholar; and a good Tutor ſeldom fails of making a good Bird. I ſay, begin with your Birds when all is quiet; they will then take much more Notice of what you endeavour to teach them. The Age, for beginning to inſtruct, ſhould not exceed three Months; I ſometimes begin ſooner; and ſeldom ſtay leſs than an Hour with each Bird. I ſometimes uſe my Pipe; ſometimes whiſtle; ſometimes ſing; but which ſoever I uſe moſt, I ſeldom fail of bringing up Birds to pleaſe to a great Degree; inſomuch that I have often ſold a Lark for two Guineas; a Linnet for one Guinea; a Bull-Finch, when it could pipe finely, from five to ten Guineas; and a Gold-Finch from one to two Guineas. In ſhort, the Whole of bringing up a Bird to ſing well, depends intirely on viſiting him early, and furniſhing him (the laſt Thing before you leave him) with what he is to eat for the Day. Water he ſhould never want in his Fountain, nor

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ſmall Gravel at the Bottom of his Cage; but ſhort Allowance in Eating is abſolutely neceſſary to make him a good Songſter; when I come to him in the Morning, he is glad to ſee me (ſuppoſing him hungry, ſays the German) he will ſoon begin to talk to me, and bid me welcome. At my firſt approaching my Bird, I very often give him three or four Grains of Rice that have been ſteep'd in Canary; I ſometimes add a little Saffron or Cochineal to the Liquid, according as I find my Bird in Health; and I ſeldom fail of being rewarded with a Song for my Pains. In the general Way of feeding the Lark, I give a ſmall Quantity of bruiſed Rice with Egg and Bread, and now and then a few Hemp-ſeeds; and that Bread is far the beſt for them that is prepar'd after the Manner of the Cock-Bread, to which I refer you. The ſmaller Birds I feed with Rape-ſeed, and very little Canary, it being apt to make them grow very fat and dull: I give theſe likewiſe, at times, a few Grains of bruiſed Rice, it doing them abundance of Service, and moſt aſſuredly prevents their falling into a Scowering, which is the Death of many a fine Bird: Thoſe Birds that are accuſtom'd to this Way of Feeding, ſeldom are troubled with what is call'd the Pip, ſhed their Feathers with far more Eaſe than other Birds, are in general much prone to Singing, and have a more agreeable Note than Birds that have not been train'd up after this Manner. The Reader is to obſerve, that when I order Grains of bruiſed Rice to be given, I always expect that the Rice has been firſt ſoak'd in Canary, and afterwards dry'd carefully for Uſe; tho' giving a Bird now and then a few Grains, while they are moiſt with this excellent Liquor, does mighty well; but it is not to be conſtantly practiſed: The Rice is only to be groſly bruiſed, ſo as to make it tender, and

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conſequently eaſier to be eaten by the Bird. I have obſerved many People, in England, give Birds Loaf-Sugar; but it is a great Fault; I adviſe, in its Place, either a ſmall Lump of Salt; or, now and then, a Drop or two of Spirits of Nitre in their Water. If you proceed, ſays this Author, according to theſe Directions, you'll find your Birds will equal thoſe of the Germans, or any other Nation. This is tranſlated from a favourite Tract in the German Language, bearing the Name of Lewis de Burgh; and is held in great Eſteem by the Engliſh as well as Foreigners.

How to colour an old Gold Chain, ſo as to look like new — Take Urine, diſſolve therein Sal-armoniac, boil the Chain in this Liquid, and it will look extremely beautiful.

How to brighten Spots in Gilding — Take Allum, boil it in clean Water, put your Work into it, and it will reſtore the Colour again, and remove the Spots.

A Wood Glue, which ſtands Water — You are to mix up common Glue with Linſeed-Oil, or Varniſh, and apply it to the Places to be glued together, after they have been warm'd, and, when thorough dry, Water will do no Damage to your Work.

Another excellent Glue — Take Iſinglaſs and common Glue, ſoak them over Night in ſtrong Brandy; then diſſolve them over a Coal-Fire, and add thereto a ſmall Quantity of Chalk in fine Powder.

Another very uſeful Glue — Take Sal-armoniac, Sandarac and Gum-lacca, ſoak and diſſolve them in ſtrong Brandy, over a gentle Heat, and put to them a little Turpentine; when all is diſſolved, then pour the Solution over Iſinglaſs and common Glue, and in a cloſe Veſſel, diſſolve it over a ſlow Fire; add to it a little Glaſs-Duſt, and when you have brought it to a proper Temper, it is fit for Uſe.

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A good Water-Cement — Take one Part of Minium, or Red-Lead, and two Parts of Lime; mix them well together with the Whites of Eggs.

Stone-Glue, wherewith you may glue either Stone, or Glaſs — Take white Flint-Stone Powder, which is dry and finely ſeared; then take white Roſin, melt it in an Iron or Earthen Pipkin, ſtir the Powder in it, till it is like a thick Paſte; warm the Glaſs, or what you deſign to glue together; afterwards gild the Places, or Joinings, and it will add a great Beauty.

To imitate Marble — Take Plaiſter of Paris, quick Lime, Salt, Ox-blood, and Stones of different Colours; alſo Pieces of Glaſs, all beat to a Powder, and mix up to the Conſiſtence of Paſte with either Vinegar, Beer, or ſour Milk, and then lay it into Tables, Pillars, &c. let it ſtand till it is thoroughly dry; then rub it firſt with a Pumice, and poliſh it with Tripoli; give the finiſhing Stroke by rubbing it over with Leather and Oil.

Another Method of imitating Marble — Make a Paſte of pulverized Plaiſter of Paris, and Size of Parchment; mix with it as many Colours as you pleaſe; ſpread it with a Trowel over a Board, and, when dry, proceed as before.

How to clean Alabaſter, or white Marble — Beat Pumice-Stones to an impalpable Powder, and mix it up with Verjuice; let it ſtand thus for two Hours; then dip in it a Sponge, and rub the Marble, or Alabaſter therewith; waſh it with a Linnen Cloth and freſh Water, and dry it with Linnen Rags.

How to prepare Moulds — Take fine Goldſmith's Sand, mix it with Lamp-black, and temper with Linſeed-Oil; the Sand ſhould be very dry.

Another Way to prepare Moulds — Prepar'd Clay, Plaiſter of Paris half the Quantity, the like of white

Starch; mix with Whites of Eggs and Gum-arabick to a Paſte.

Againſt Ruſt, Spots, &c. in Iron — Crucible Powder, ſifted Emery, and Silver Oar, all in fine Powder; add thereto the beaten Scales of Iron; and rub the ruſty Parts with Leather dipp'd therein.

Choice Varniſh, which cannot be hurt by Wet — Take Gum Capall. beat it fine, put it into a Glaſs, and pour of high rectify'd Spirits of Wine over it four Inches; cloſe the Glaſs with a Bladder, ſet it 24 Hours in an Oven to diſſolve the Gum, and put it in Baln. Mar. till the Spirits and Gum are incorporated.

Fine Indian Varniſh — Take high rectify'd Spirits and Gum-lacca diſſolv'd in a Vial in Sand-Heat; tie a Bladder over the Vial, and if it bubbles, prick the Bladder to give it Vent: The Spirits ſhould be four Inches above the Gum.

To japan with Gold, Glaſs, or any other metallic Spangles — Lay on your Work with Lack-varniſh; then grind Cologn Earth and Gamboge with the ſame; this Varniſh muſt be white and clear; with that Colour lay your Work once or twice over; let it dry, then varniſh it over; and ſift on the Gold-duſt, &c. you intend to uſe: Give ſeveral Lays of Varniſh; poliſh with Dutch Ruſhes; next with Tripoli and ſweet Oil; and you may attempt a Varniſh after for Beauty.

To prepare a blue Colour from Verdigreaſe — Take Sal-armoniac and Verdigreaſe, equal Quantities; mix well with Water of Tartar, into a Paſte, put this into a Vial, which ſhould be ſtopped cloſe; let it ſtand ſeveral Days, and you will have a fine blue Colour.

To make Venice Sky Blue — Quick-Lime one Pound; mix and work it with ſharp white Wine Vinegar into Dough;

Dough; let it ſtand for half an Hour, and, when hard, pour more Vinegar to it, in order to make it ſoft; when done, add two Ounces of pulveriz'd fine Indigo, mix it firſt well together; then ſet it into a Glaſs Veſſel for 20 Days under Horſe-dung; after which Time, view the Colour, and, if not to your Liking, continue it longer under the Horſe-dung.

How to make Indian Ink — Take black Horſe-beans, and burn them to a Powder; then mix them up with Gum-arabic Water, and bring them to a Maſs, which preſs in a Mould, made for that Purpoſe, and let it dry.

An excellent Water for taking out Spots in Cloth, Stuff, &c. — Spring-water a Quart, put into it a little Pot-aſhes, about the Quantity of a Walnut, and a Lemon cut in ſmall Pieces; mix this well together, and let it ſtand 24 Hours in the Sun; then ſtrain it through a Cloth, and bottle the clear Liquid up for Uſe. It takes out all Sorts of Spots in any Kind of Thing; waſh the Place where the Spot was (after being taken out) with fair Water. This Liquid is preferable to the Balls for taking out Spots, inſerted in this Book.

How to make the Thunder Powder — Three Parts Salt-petre, two Parts Salt of Tartar, one Part Sulphur, pounded together: Sixty Grains melted in a Spoon, and warm'd over a Candle, goes off like Thunder.

To make the luminous Phoſphorus—Take an Earthen Diſh, which is not glaz'd, about half an Inch thick, and make a Sort of Paſte of Spirit of Nitre and pulveriz'd Chalk, well ſtirred together; of this take the Bigneſs of a Shilling; put it into the Plate, and ſet it on the Fire under a Muffel (where it will bubble very much) to dry; when thorough dry, take it out, let it cool, and mix it up again with Spirits of Nitre.

This do ſix or eight times, and it is finiſhed. After it is cold, hold it a little while againſt a Candle, and ſhewing it in a dark Place, it gives a ſurprizing Light.

A Philoſophical Tree — Fine Silver one Ounce; Æqua-fortis and Mercury each four Ounces; in this diſſolve your Silver in a Vial, put therein a Pint of Water, cloſe your Vial, and you'll have a curious Tree ſpring forth in Branches, which grows daily.

To repreſent the four Elements — Firſt, tincture, in a Vial, good Spirits of Wine with Terra Solis (Air) then take well rectify'd Oil of Turpentine, which you are to tincture with Saffron and red Ox-tongue Root for (Fire) Oil of Tartar, to which you are to add a little Ultramarine, to colour it like (Sea, or Water) and to repreſent the Earth, take a little Smalt. This you may ſhake together, and after you have let it ſtand a ſmall Time, every Thing will take its Place again, for they will never unite.

Spaniſh Varniſh for Books, &c. — A Pint of high rectify'd Spirits of Wine, of clean Gum-ſandarac four Ounces, clear Oil of Spike one Ounce; pound the Sandarac, and put it into the Spirits of Wine, and then into the Oil of Spike; let it ſtand till it is diſſolved and ſettled.

An infallible Cure for the Bite of a Mad Dog, brought from Tonquin by Sir George Cobb, Bart. — Take 24 Grains of Native Cinnabar, 24 Grains of Factitious Cinnabar, and 16 Grains of Muſk. Grind theſe together into an exceeding fine Powder, and put it into a ſmall Tea-Cup of Arrack, Rum or Brandy; let it be well mix'd, and give it the Perſon as ſoon as poſſible after the Bite; a ſecond Doſe of the ſame muſt be repeated thirty Days after; and a third may be taken in thirty Days more: But if the Symptoms of Madneſs appear on the Perſons, they muſt take

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one of the above Doſes immediately, and a ſecond in an Hour after; and, if wanted, a third muſt be given a few Hours afterwards. The above Receipt is calculated for a full grown Perſon, but muſt be given to Children in ſmaller Quantities, in Proportion to their Ages. This Medicine has been given to hundreds with Succeſs; and Sir George Cobb himſelf has cured two Perſons who had the Symptoms of Madneſs upon them. If in the Madneſs they can't take it in Liquid, make it up into a Bolus, with Honey; after the two firſt Doſes, let it be repeated every three or four Hours, till the Patient be recovered: This Repetition to be omitted unleſs neceſſary. You are to take all imaginable Care that the Muſk be genuine.

Colours of general Uſe in Painting — *For White*, uſe White-lead, Flake-white, Muſſel-ſilver. *For Blue*, Indigo, Blue-lake, Blue-verditer, Smalt, Ultramarine, Latmus, Blue. *For Red*, Vermillion, Red-oaker, Lake, Carmine. *For Green*, Sap-green, Verdigreaſe, Terra-verde. *For Yellow*, Yellow-oaker, Maſticot, Dutch-pink, Gamboge, Naples-yellow, Shell-gold. *For Brown*, Brown-oaker, Chimney-ſoot of Wood-fire, Cologne-earth, Umber. *For Black*, Lamp-black, Ivory-black, Sea-coal Black, Indian-ink.

Dying in general: Firſt, Carnation Colour for either Silk, or Worſted — Take, to each Pound of Silk, Ribbons, &c. four Handfulls of Wheaten-bran, put it into two Pails of Water, boil it, put it into a Tub, and let it ſtand all Night; then take half the Quantity of that Water, put into it half a Pound of Allum, a Quarter of a Pound of red Tartar (in fine Powder) and half an Ounce of fine powder'd Curcumi; boil them together, and ſtir them about well with a Stick; after boiling a Quarter of an Hour, take the Kettle off the Fire, put in the Silk, and

cover the Kettle close to prevent the Steam from flying out; leave it thus for three Hours, then rince your Silk in cold Water; beat and ring it on a Wooden-pin, and hang it up to dry. Then take a Quarter of a Pound of Gall-nuts, beat them fine, and put the Powder thereof into a Pail of River Water; boil it for one Hour; then take off the Kettle, and when you can bear your Hand therein, put in your Silk, and let it lay therein an Hour; then hang it up to dry. When dry, if you would proceed to a Crimson Colour, weigh to each Pound of Silk three Quarters of an Ounce of Cochineal, which beat to a fine Powder, and sift it thro' a fine Hair Sieve; then put it in the Pail, with the remaining Lee, and having mix'd it well, pour it into a Kettle, and when it boils, cover it well to prevent any Dust coming to it; add three Ounces of Tartar, in fine Powder; let it boil for a Quarter of an Hour; then take it off the Fire, let it cool a little, and put in the Silk, stirring it round to prevent its being clouded. It is to be wring'd and beat with a Stick, and then rinced in hot Lee of Newcastle Soap.

To dye a Violet Colour — Boil your Silk in Bran and Allum, as before directed; put clean Water in your Copper, and to every Pound of Silk, put one Pound of Galls, and one Ounce and Half of Cochineal finely powder'd, and one Ounce of Gum-arabic; boil it together, like the Crimson Red; leave it all Night, and next Morning take out your Silk and rince it in fair Water.

To dye Linnen, or Yarn, of a lasting Violet Colour — Take one Pound of Tartar, half a Pound of Allum, two Ounces of Fernambuca, and half an Ounce of Salt-petre; boil them together; then let them cool a little, and put in your Yarn; let it soak for four Hours,

Hours, keeping the Dye hot, but not boiling, then rince and dry it.

To dye Linnen black — Take Filings of Iron, waſh them, and add to them the Bark of an Elder Tree; boil them up together, and dip your Linnen therein.

Black for Woollen—Take one Ounce and Half of Sal-armoniac, with this boil your Stuff gently for an Hour, turning it all the while; then take it out, and let it cool. *Or* — Take one Pound and Half of Vitriol, and a Quarter of a Pound of Sumach; boil your Stuff therein for an Hour; cool and rince it, and it will be a good Black.

A fine Carnation Colour —Take one Ounce of Tartar, Starch and Lemon-juice of each half an Ounce, and Cream of Tartar a Quarter of an Ounce; boil them together in fair Water, adding a Quarter of an Ounce of Curcumi; put in half an Ounce of Cochineal, and a little after, one Ounce of Æqua-fortis, in which you have diſſolved a Quarter of an Ounce of Pewter, and then put in your Silk.

To dye Silk a Straw-Colour — Put into a clean Copper to each Pound of Silk two Pounds of Fuſtic, let it boil for an Hour, then put in ſix Ounces of Gall, let it boil together half an Hour longer; the Silk being allum'd and rinc'd, is turn'd about in this Colour; then take it from the Kettle, and wring it out; dip it in Pot-aſh Lee, and wring it out again; then put it into the Copper, let it ſoak a whole Night, and in the Morning rince, beat it out, and hang it to dry.

Fine Orange Colour — Soak the white Silk in Allum Water; then take two Ounces of Orleans Yellow, put it over Night in Water, together with one Ounce of Pot-aſhes; boil it up, add to it, after boiling half an Hour, one Ounce of powder'd Curcumi, ſtir it with a Stick, and after a little while, put your

allum'd Silk into it for two or three Hours, according to what Height you would have your Colour; then rince it out in clean Soap-ſuds, till it looks clear, and afterwards clear it in fair Water.

To dye a Gold Colour — Having firſt dy'd your Silk yellow, then take to each Pound one Ounce of Fiſet-wood, or Yellow-chips, and of Pot-aſhes the Quantity of a Bean; boil this for half an Hour, then put in your Silk, and turn it, till it is to your Liking.

To ſet a Blue Vat — Take half a Buſhel of clean Beech-aſhes, well ſifted, of this make a Lee with three Pails of River, or Rain-water; pour it into a Tub, and put in two Handfuls of Wheaten-bran, two Ounces of Madder, the like Quantity of white Tartar, finely powder'd, one Pound of Pot-aſhes, and half a Pound of Indigo powder'd; ſtir it well together, once every 12 Hours for 14 Days following, till the Liquid appears green on your Fingers, and then it is fit to dye; however, when ready, ſtir it every Morning, and cover it when you have done. When you are going to dye Silk, firſt waſh the Silk in a freſh warm Lee, wring it out, and dip it in the Vat; you may dye it what Shade you pleaſe, by holding it longer or ſhorter. When the Colour is to your Mind, wring the Silk, and having another Tub ready at Hand with clear Lee, rince therein your Silk, then waſh and beat it in fair Water, and hang it to dry. When the Vat is waſted, fill it with Lee; but if it grows too weak, ſupply it with half a Pound of Pot-aſhes, the like Quantity of Madder, a Handful of Bran, and half a Handful of white Tartar; let it ſtand eight Days, ſtirring it every twelve Hours, and work it again.

The valuable Fire-Ball; Manner of making it; and its great Uſe in Families — Procure a Ton of ſoft, mellow Clay, that will work well, and is free from Stones;

Stones; to this Clay is to be ſifted three or four Buſhels of ſmall Sea-Coal, and this is to be well mix'd with the Clay, in the Manner the Labourer works his Mortar: Having thus done, it may be made up into ſuch ſiz'd Lumps that will beſt ſuit your Fire-grate; I have commonly ſeen them, in Countries where they are acquainted with their Uſe, about three or four Inches ſquare; tho' they may be made either large or ſmall, according to the Quantity of Fire you ſtand in Need of: When made up into Lumps, it would be neceſſary to lay them in a Shed, Barn, or Out-houſe, to dry for Uſe, as they burn much better than when newly made and wet; but in caſe you are oblig'd to uſe them immediately, it is very proper to lay a few of theſe Balls either behind (or near) the Fire, where they get dry very ſoon. When your Fire burns clear, place three or four, or more, of theſe Balls in the Front of your Fire, as you do large Coals, and you'll ſoon find the Benefit you receive from them; for they not only burn exceeding clear, without the leaſt Smoke, but give a far greater Heat than the beſt Coals you can get. The Charge of the Load of Clay will not exceed 3*s.* the Labourer, for making up, about 1*s.* 6*d.* Coals work'd in the Clay (ſuppoſing them at 12*d.* a Buſhel) 5*s.* It appears, that the whole Charge of making up the Ton of Clay, with the Coals, does not exceed 10*s.* tho' the Balls are preferable to, and will do more Service than a Chaldron of the beſt Sea Coals. Thoſe who incline to make Uſe of this cheap Way of keeping a good and wholſome Fire, are to take Notice, that the Balls are not to be laid on till the Fire burns clear and well; and then they will give great Satisfaction. This is choice Fuel to burn in Chimneys inclinable to Smoke. See the Cure for ſmoaking Chimneys, p. 90.

A never-

A never-failing Secret for curing the Tooth-ach— The Author of this Secret obſerves, that out of two hundred Perſons that have try'd his Remedy, in one Month, not more than ſeven or eight have fail'd of a Cure. You are to put a Piece of Salt-petre to the aching Tooth, Teeth, or Gums, about the Size of a Horſe-bean, and in a few Minutes you will certainly find Relief. To compleat the Cure, and prevent a Return, take the Snuff mention'd in Page 78 of this Book, according to the Directions there given. The Cure for the Tooth-ach, &c. advertis'd at one Shilling the Bottle, is made thus: Spirits of Nitre half an Ounce; Allum one Drachm; Spring-water three Ounces: Mix well together, and tincture with Cochineal, that it may be more pleaſing to the Eye. Many that have try'd this laſt Medicine in vain, have been ſurprizingly reliev'd by the Salt-petre, &c. tho' it had no Patent to ſet it off.

Game-Cocks; their Shape, Colour, Courage, &c. accurately deſcribed — Their Shape ſhould neither be large nor ſmall, but of a middling Size; when too ſmall, Weakneſs may juſtly be ſuſpected; and on the other Hand, the large Cock is generally ſpeaking very unactive, and often hard to match: It is for this Reaſon, I always prefer a Cock of a middle Size; he frequently proves both ſtrong and nimble, which are both valuable Articles.

His Head—Should be ſmall.

His Eye—Large and quick.

His Back—Strong, crock'd, and big at ſetting on.

Colour—Suitable to the Plume of his Feathers, whether black, yellow, or reddiſh, &c.

Beam of his Leg—Should be very ſtrong, and agreeable to his Plume, blue, grey, or yellow.

Spurs—Rough, long and ſharp, a little bending, and turning inward.

Signs

Signs — If a Cock's Neck be inveſted with a ſcarlet Complection, he is ſtrong, luſty, and couragious; but on the contrary, if pale and wan, it denotes the Cock to be weak, and defective in Health. If his Colour be either grey, yellow, black, or red, with a black Breaſt, it is well; not but there are other colour'd Piles that prove extremely good, which you may find out by Practice and Obſervation; but thoſe mentioned, long Experience has prov'd to be the beſt: The py'd Pile may paſs indifferently; but the White and Dun are rarely found good. A Cock's Courage may be known by his upright Standing, ſtately Tread in Walking, and frequent Crowing, while in the Pens; theſe, ſays Markham, are ſure Signs of a true Breed. He adds, that a good Cock ſhould be ſtrong ſhap'd; of good Colour; of true Valour; with Heel ſharp and ready. His Sharpneſs of Heel is known by frequent Obſervation in Fighting; when upon every Riſing he ſo hits, as to extract Blood from his Opponent, gilding his Spurs continually, and every Blow threatning immediate Death to his Adverſary. A ſharp heel'd Cock, though he be ſomewhat falſe, is better than a true Cock with a dull Heel; and the Reaſon is this; the one fights long, but ſeldom wounds; the other carries a Heel ſo fatal, that every Moment produceth Expectation of the Battle's Concluſion; and though he is not ſo hardy as to endure the utmoſt Hewing, ſo commonly there is little Occaſion for it, being a quick Diſpatcher of his Buſineſs: Should your Cock prove both hardy and narrow-heel'd, he is then the beſt Cock you can make Choice of.

The proper Hen for a true Breed — The Hen ſhould be either black, brown, ſpeck'd, grey, griſſel, or yellowiſh; if tufted on the Crown, the better; and if ſhe has the Addition of Weapons, it adds much

to

to her Excellency. Her Body ſhould be large and well poked behind for the Production of large Eggs. Obſerve how ſhe behaves herſelf to her Chickens, whether friendly or frowardly; and take ſpecial Notice of her Carriage and Deportment among other Hens; if ſhe receive Abuſes from them without Revenge, or ſhew any Thing of Cowardice, value her not, for you may aſſure yourſelf her Chickens will prove very indifferent. A right Hen of the Game, from a Dunghill Cock, will bring very good Chickens; but the beſt Cock, from a Dunghill Hen, will never get a Bird that's fit for the Game; therefore, if you intend to have a good Breed, get good Cocks to your Hens.

Beſt Seaſon for Breeding — Is from the Encreaſe of the Moon in February, to the Encreaſe of the ſame in March. Let her Neſt be ſo placed, that ſhe may not be diſturbed by the Sight of any other Fowl, which frequently ſo raiſeth her Choler, that the Eggs are in great Danger; let the Compoſure of her Neſt be made of ſoft ſweet Straw, and let it ſtand in ſome warm Place, for ſhe is a very tender Bird. You are to obſerve whether ſhe turn her Eggs often; if not, you are to aſſiſt her therein. And that ſhe may not rove too far from her Eggs, take Care to ſupply her with neceſſary Food; let her likewiſe have freſh Water, and Sand, Gravel, and Aſhes, finely ſifted, that ſhe may trim herſelf at her Pleaſure in the Place where ſhe ſits. Hens commonly hatch their Chickens after 21 Days: Obſerve in the hatching to take thoſe newly hatched, and wrapping them in Wooll, keep them warm by the Fire-ſide till the reſt are diſcloſed: Being all hatch'd, put them under the Hen, and be ſure to keep her warm, and ſuffer neither her nor her Chickens to ſtraggle abroad till three Weeks old at leaſt: The Room wherein they walk ſhould be board-

ed,

ed, for all other Floors are too moiſt and cold. After a Month old, they ſhould walk in ſome green Place, that they may have the Benefit of feeding on Worms, and now and then to ſcower themſelves with Graſs and Chickweed; but be careful they come not near Puddles, or filthy Places, for they ingender in Birds of this Nature venomous Diſtempers, which often prove fatal; for the Prevention of ſuch Maladies, by way of Antidote, give them every Morning, before they range abroad, the Blades of Leeks chopp'd or minced ſmall, and mingled among their uſual Diet; it will likewiſe be requiſite to perfume their Room with burnt Penny-royal, or Roſemary. This is a neceſſary Courſe to take till their Sexes are diſtinguiſhable: And as ſoon as the Comb and Wattles are diſcernable, or plainly viſible to the Eye, cut them away, and anoint the ſore Part with freſh Butter till it be whole. The Time of the Separation of the Cock-Chickens, is when they begin to fight with and peck one another; till which Time you may let them walk with the Hen promiſcuouſly together, but afterwards let their Walks be apart; and that Walk is beſt where he may ſecurely and privately enjoy his Hens, without the Diſturbance and Annoyance of other Cocks; for which Purpoſe, Walks at Windmills, Water-mills, Lodges in Parks, &c. are very good. Let the Place of Feeding be as near as you can on ſoft dry Ground, or Boards; for if the Place be hard, it will ſo weaken and blunt their Beaks, that they will be unable to hold faſt. When the Cock is in his Walks, give him ſome white Corn, and now and then a white Bread Toaſt, ſteeped in Drink, or Man's Urine, which will both ſcower and cool him.

Number of Hens proper to go with one Cock — Let not above three Hens walk with a Cock; for ſhould you

you ſuffer more, he will tread too much, by reaſon of the Heat of their Nature; and by often treading, they will conſume their Strength, and become ſo debilitated, that though they have Courage enough, yet they have not Strength to perform their Parts as they ought to do in a Battle.

Improper Time for Crowing — If your Chickens frequently crow before ſix Months old, or unſeaſonably, and their Crowing is clear and loud, fit them for either Pot, or Spit, for they are infallible Signs of Cowardice and Falſhood. The true Game Cock is long before he obtains his Voice, and when he has got it, he obſerves his Time to the greateſt Nicety.

Proper Age for Fighting — A Cock ſhould not fight till he is compleat and perfect in every Member, and that is not till he is two Years old; to fight him before, while his Spurs are tender, is great Folly; you may then probably know his Valour and Courage, but you cannot know his real Worth and Goodneſs.

The proper Rooſting-Perch — Take Care, that your Cock's Rooſting-Perch be not too ſmall in the Gripe, or ſo ill placed, that he cannot ſit without ſtradling, or if it be crooked it is bad; for by theſe Means, a Cock will be uneven heel'd, and conſequently no good Striker; for know, that a Perch often makes or marrs a Cock; to remedy or prevent ſuch Faults, is to have in your Rooſt a Row of little Perches, about eight Inches in Length, and ten Inches from the Ground, that the Cock may with more Facility aſcend, and being up, forced to keep his Legs near together; and that Cock which ſits cloſe, is ſurely a narrow Striker. Let the Foot-ſtool of the Perch be round and ſmooth, and the Ground underneath the Perch be ſoft, otherwiſe, when he leaps down, he will be apt, on a rough and hard Ground, to hurt his

his Feet, inſomuch that they will grow knotty and gouty.

The Manner of Dieting and Ordering a Cock for Battle — The knowing Cockers are very cautious how they divulge their Secrets of Dieting, as on that the winning or looſing a Battle chiefly depends; the beſt Cock undieted, is unable to encounter the worſt that is dieted; but let others be as ſparing as they pleaſe of their Experience and Obſervations, for my Part, I ſhall be free, and not conceal any Thing that may tend to the Propagation of the Art of Cock-fighting.

Time of taking up Cocks — The Time of taking up your Cocks is about the latter End of Auguſt, for from that Time, till the latter End of May, Cocking is ſeaſonable, and in Requeſt, the Summer Seaſon being improper, by reaſon of its great Heat. Having taken them up, view them well, and ſee that they are ſound, hard feather'd, and full ſumm'd; that is, having all their Feathers compleat; then put them into ſeveral Pens, having a moving Perch therein, to ſet it at which Corner you think moſt convenient: Keep your Pens clean, and let not your Cocks want either Meat or Water.

Manner of Feeding for the firſt four Days — The firſt four Days after your Cock is penn'd, feed him with Crumbs of old Manchet, cut into ſquare Bits, about a Handful at a time, and feed three times a Day therewith, at Sun-riſing, about Noon, and at Sun-ſetting; and let his Water be both cold and clean.

Manner of Sparring — Having fed your Cock thus four Days, or ſo long till you think he hath purged himſelf of his Corn, Worms, Gravel, and other coarſe Feeding, then, in the Morning, take him out of the Pen, and let him ſparr a-while with another Cock,

which

which is done after this Manner: Cover your Cock's Heels with a Pair of Hots, made of Rolls of Leather, ſo covering the Spurs, that they cannot bruiſe or wound one another, and they ſetting them down on Straw in a Room, or Graſs abroad, let them fight ſometime, but don't let them draw Blood of one another: This Exerciſe heateth and chafeth their Bodies, and it breaketh the Fat and the Glut that is within them, and adapts it for Purgation.

Manner of Sweating a Cock — Having ſparred as much as is ſufficient, which you may know when you ſee them pant and grow weary; then take them up, and taking off their Hots, give them a Sweat after this Manner: Put them in deep Straw Baſkets, made for the Purpoſe, or for Want of them, take a Couple of Cocking-bags, fill theſe with Straw half ways, put in your Cocks ſeverally, and cover them over with Straw to the Top, then ſhut down the Lids, and let them ſweat; but do not forget to give them firſt ſome white Sugar-candy, chopt Roſemary, and Butter, mingled and incorporated together; let the Quantity be about the Bigneſs of a Walnut; by ſo doing you will cleanſe him of his Greaſe, increaſe his Strength, and prolong his Breath.

When to be taken from their Sweating-Places, and what to be done — Towards four or five o'Clock in the Evening, take them out of their Stoves, and having lick'd their Eyes and Head with your Tongue, put them into their Pens, and having filled their Troughs with ſquare-cut Manchet, piſs therein, and let them feed whilſt the Urine is hot; for this will cauſe their Scowring to work, and will wonderfully cleanſe both Head and Body.

The Manner of making Cock-Bread — You are now to diet your Cocks with the following Bread: Take of fine Wheat-meal and Oat-meal-flour of each one Gallon,

Gallon, and knead them into a ſmall Paſte, with Ale, the Whites of half a Score of Eggs, and ſome Butter; having wrought the Dough very well, make it into broad thick Cakes, and when they are four Days old, cut them into ſquare Pieces; I will not adviſe you to uſe (as is the Cuſtom with ſome) Liquorice, Anniſeeds, or other hot Spices among your foreſaid Ingredients, for they will make a Cock ſo hot at the Heart, that towards the End of a Battle, he will be ſuffocated and overcome with his own Heat. In ſhort, that Food is beſt, which is moſt agreeable to his own natural Feeding.

The Second Day after Sparring — Take your Cock into a green Cloſe, and having a Dunghill Cock in your Arms, ſhew it him, and then run from him, that thereby you may entice him to follow, you permitting him to have now and then a Blow, and thus chace him up and down about half an Hour; when he begins to pant, being well heated, take him up, carry him home, and give him this Scowring: Take half a Pound of freſh Butter, and beat it in a Mortar with the Leaf Herb of Grace, Hyſop, and Roſemary, till they all look like a green Salve, give him thereof a Piece as big as a Walnut, and then feed him as before, till Evening, and continue his Feed according to former Preſcription. The next Day, let him feed and reſt, and ſparr him the Day following; thus do every other Day for the firſt Fortnight, either ſparring or chacing, and after every Heat, a Scowring, which will keep him from being fat and purſy. Feed him the ſecond Fortnight as you did the firſt; but you muſt not ſparr or chaſe him above twice a Week; obſerving ſtill, that if you heat him much, you muſt ſtove him long, and give him a greater Quantity of Scowring. When well in Breath, ſlight Heats, ſmall Scowrings, and little Stoving will

do beſt. The third Fortnight (which is a Time ſufficient for ordering a Cock for the Battle) you muſt feed him as before, but not ſparr him at all, for fear of making his Head ſore; but you may moderately chaſe him twice or thrice, and give him his Scowring, rolled well in brown Sugar-candy, which prevents the Scowring from making him ſick: You may let the Cock reſt four Days, and then you may match him, obſerving that he come empty into the Pit.

Way of Matching Cocks — As a great deal depends on matching a Cock properly, you are carefully to obſerve both the Length and Strength of them; for if your Adverſary's Cock be too long, your's ſhall hardly catch his Head, and ſo be incapable of endangering Eye or Life; and if he be the ſtronger, he will over-bear your Cock, and not ſuffer him to riſe or ſtrike with any Advantage.

The Way of knowing the Length and Strength of a Cock — The Length you may judge of by your Eye, when you gripe the Cock by the Waiſt, and make him ſhoot out his Legs, in which Poſture you ſhall ſee the utmoſt of his Height, and ſo compare them together, being herein governed by your Judgment; his Strength is known by the Thickneſs of his Body. That Cock is moſt ſurely the ſtrongeſt, that is largeſt in the Garth. You ſhall know the Dimenſions of the Garth by the Meaſure of your Hands, griping the Cock about from the Points of your great Fingers to the Joints of your Thumbs, and neither of theſe Advantages by no Means give your Adverſary; if you doubt Loſs in the one, be ſure to gain in the other: For the weak long Cock will riſe at more Eaſe, and the ſhort ſtrong Cock will give the ſurer Blow.

How to prepare Cocks for Fight — Having made an equal Match as near as you can, prepare him for fighting

fighting after this Manner: Firſt, with a Pair of fine Cock-ſhears, cut all his Mane off cloſe unto his Neck, from the Head to the ſetting on of the Shoulders. Secondly, clip off all the Feathers from the Tail cloſe to his Rump, the redder it appears, the better is the Cock in Condition. Thirdly, take his Wings and ſpread them forth by the Length of the firſt riſing Feather, and clip the others ſlopewiſe, with ſharp Points, that in his riſing he may therewith endanger an Eye of his Adverſary. Fourthly, ſcrape, ſmooth, and ſharpen his Spurs with a Penknife. Fifthly and laſtly, ſee there be no Feathers on the Crown of his Head for his Adverſary to take hold of; then, with your Spittle, moiſten his Head all over, and turn him into the Pit to try his Fortune.

The Manner of Ordering Cocks after Battle, and how to cure their Wounds—The Battle being ended, immediately ſearch your Cock's Wounds; thoſe you find, ſuck the Blood out of them, and waſh them well with warm Urine; after this, give him a Roll or two of your beſt Scowring, and ſtove him up as hot as you can for that Night; in the Morning, if you find his Head ſwell'd, you ſhould ſuck his his Wounds again, and likewiſe bathe them again with warm Urine; then take the Powder of the Herb Robert, put it into a fine Bag, and pounce his Wounds therewith; after this, give him a large Handful of Bread to eat out of warm Urine, and then put him into the Stove again, and let him not feel the Air till the Swelling be fallen.

Hurt in the Eye; how cur'd—If he hath received any Hurt in his Eye, then take a Leaf or two of right Ground Ivy, that which grows in little Tufts in the Bottom of Hedges, and hath a little rough Leaf; take this Ivy, chew it in your Mouth, and ſpit the Juice into the Eye of the Cock, and this will not

only cure the preſent Malady, but prevent the Growth of Films, Haws, Warts, or the like, deſtructive to the Eye-ſight. After you have put your wounded Cocks to their Walks, take Care to ſee them now and then; and if you find about their Head any ſwell'd Bunches, hard and blackiſh at one End, you may then conclude, there are unſound Cores in ſuch Bunches, which open, and cruſh out the Matter with your Thumbs; after the corrupted Matter is well cleans'd from the Excreſſences, fill the Cavities with freſh Butter, and a Cure ſurely follows.

Cure for the Pip — The Pip is a white thin Scale growing on the Tip of the Tongue, by which Means Poultry in general cannot feed; it is very viſible to the Eye, and proceedeth from foul Feeding, or Want of Water: It is cured by pulling off the Scales with your Nail, and rubbing the Tongue with Salt.

Cure for the Roop — This is a filthy Boil, or Swelling, on the Rump of the Cock, Hen, *&c.* and will corrupt the whole Body. It is known by the ſtaring and turning back of the Feathers: For the Cure, you are to pull away the Feathers, and open the Sore to thruſt out the Core; then waſh the Part with Water and Salt, and the Cure is effected.

Cure for the Flux — This often happens from eating too much moiſt Meat: They are cured by giving them ſcalded Peaſe-bran; but if they cannot mute, anoint their Vents, and give them Corn ſteep'd in Man's Urine.

Lice deſtroy'd — Lice is a common Infirmity among them, proceeding from corrupt Food, or for Want of bathing in Sand, Aſhes, or the like: They are deſtroy'd by waſhing the Fowl in warm Pepper-water.

Sore Eyes — Are cur'd by chewing a Leaf or two of Ground-ivy in your Mouth, and ſpitting the Juice thereof into the Eyes of the Fowl.

The following choice and valuable Secret for Feeding a Cock Four Days before fighting, was communicated to James Macdonald, M. D. by a noble Lord; by which remarkable and valuable Method of Feeding, it appears, that ninety-three Battles have been won out of a hundred: Now first published by Special Permission; and, to prevent the Publick's being imposed on, these Valuable Instructions will continue to be printed in this remarkable Character.

I Don't doubt, says our noble Author, but you have taken Care (as a Battle is at Hand) to purge your Cock of his gross Feeding. I suppose the Time no longer than four Days before you intend him to try his Fortune in the Pit; therefore,

The First Day at Sun-rising, give three Ounces of Bread (cut in small Squares) made in the following Manner, viz. Millet-seed and Rice, of each half a Pound; grind these to a fine Powder; then add thereto four Ounces of French Barley, and the like Quantity of Vetcher; these are likewise to be ground to a fine Powder; mix 'em together, and sift them through a fine Sieve. This Flour you are to wet with sound strong Drink, after having tinctur'd it of a high Colour with Cochineal: Add to the Whole the White of three Eggs, and White and

Yolk of a fourth; make up the Dough into one Loaf, and bake it four Hours in a very slow Oven; two Days after baking, it will be fit for Use.

First Day at Noon, give bruised Millet-seed and Rice, in equal Quantities, about a common Spoonful.

First Day at Night, about Sunset, give the same Quantity of the Bread as in the Morning.

Second Day in the Morning, give half the Quantity of Bread, and one Ounce of the Millet-seed and Rice, bruised as before.

Second Day at Noon, give two Ounces of the Bread alone, cut in square Pieces.

Second Day at Night, give the same.

Third Day in the Morning, give two Ounces of the Bread, and one Ounce of bruised Rice and Millet.

Third Day at Noon, if the Cock takes to the Rice and Millet, let him have a heap'd Spoonful; if not, give him one Ounce of the Bread, and a little of the bruised Seeds.

Third Day at Night, give him about an Ounce of Sheep's Heart, cut very small, well boil'd, and mix'd, with about an Ounce of the Bread.

Fourth Day in the Morning, give one Ounce of the Bread alone.

Fourth Day at Noon, give one Ounce of the Bread, and half an Ounce of the bruis'd Seeds.

Fourth Day at Night, give one Ounce of the Bread, and a very little of the Heart.

Fifth Day in the Morning (which I suppose the Day for Fighting) about Five o'Clock, give half an Ounce of the French Barley, gravly bruis'd.

About Ten in the Morning, provided the Cock does not fight till Afternoon (if he fights in the Morning, this to be omitted) give half an Ounce of the Bread, cut small.

A few Minutes before you bring him to the Pit, give him twenty or thirty Millet-Seeds, steep'd in Sherry; and rub and moisten his Mouth with a Rag wet with Sherry, and a few Drops of Vinegar, immediately before he faces his Antagonist.

The Cock is to have no Water the four Days before Fighting, but what is scented with Musk, and Plenty of Balm-Leaves steep'd in it.

If you bathe his Head now and then with old Verjuice, milk-warm, it will do much Good.

N. B. It has been observed, that the Water which comes from Chalk, or Lime-Stone, is far the best for Game Fowl, during the First Month of Feeding.

Blights; in what Manner they happen; and how prevented— We are ſoldom troubled with this Diſorder, but upon the Blowing of ſharp eaſterly Winds, which are moſt frequent with us about March; whence that Month proves, of all others, the moſt fatal to Plants. From this Circumſtance, ſome imagine the Colds that then reign, being exaſperated by the eaſtern Winds, effect Blights; but Mr. Bradley furniſhes a more plauſible Acoount; for, on this Principle, it were hard to ſay, why one Plant, or one Part of a Plant, ſhould be blighted more than another. He obſerves then, that Caterpillars generally attend thoſe Winds, and that they infect ſome one Kind of Tree more than another, and even ſome particular Branch more than others; and thence infers, either that the Eggs of thoſe Inſects, or the Inſects themſelves, are brought to us by the eaſterly Winds; or that the Temperature of the Air, when the eaſtern Winds blow, is neceſſary to hatch thoſe Creatures, ſuppoſing the Eggs to have been already laid on the infected Parts. Now each of theſe Cauſes ſeems to have its Effect; thoſe Blights, attended with large Worms, or Caterpillars, ſeem hatched by the eaſtern Winds; and thoſe others, which only produce the ſmall Inſects, that occaſion the Curling the Leaves of Trees, may proceed from Swarms of them, either ready hatched, or in the Egg, brought with the Wind. The Coldneſs of thoſe Winds Mr. Bradley ſhews to be no Objection againſt their being fitted to hatch Inſects; different Inſects requiring vaſtly different Degrees of Heat. To this he adds, that every Inſect has its proper Plant, or Tribe of Plants, which it naturally requires for its Nouriſhment, and will feed on no other; and in which, therefore, it lays its Eggs; it is no Wonder then, that one Kind of Tree ſhould be infected, and all the

reſt

reſt eſcape. The Wind which brings, or hatches, the Caterpillars on the Apple-tree, will not infect the Pear, Plum, or Cherry; becauſe, were the Shoals of Inſects natural to the Apple, to light on thoſe other Trees mentioned, they would either want their proper Matrix to hatch in; or, were they ready hatch'd, would periſh for Want of proper Food: So that it is morally impoſſible, all Kinds of Plants ſhould be blighted at the ſame Time, unleſs the Eggs of every Kind of Inſect natural to each Tree, could be brought at one Time with the Wind; or that an eaſterly Wind could contain in it, at once, as many different Degrees of Cold, or Heat, as would be required to hatch and maintain each different Claſs of Inſects. Nor is it any Objection, that in Blights there are not frequently any Animals immediately perceived. By the Microſcope, we diſcover Animalcules a million of times leſs than the ſmalleſt which comes under our ordinary Notice: Theſe, the gentleſt Air may be conceived capable of blowing from Place to Place; ſo that it is no Wonder, if they be brought to us from the remoteſt Regions, eſpecially the north-eaſt Part of Great Tartary, &c. where the Cold is intenſe enough to give them Life; and from whence there is not Sea enough, by the Warmth and Saltneſs of whoſe Vapours they might be ſuffocated. Thoſe brought from the north-eaſt Parts of America, are probably deſtroy'd by paſſing the vaſt Atlantic Ocean, which may be the Reaſon why the north-weſt Wind is not ſo infectious. *To prevent Blights*, the more knowing among Country People, while the eaſterly Winds blow, uſed to guard againſt them, by burning Heaps of Weeds, Chaff, &c. on the Wind-Side of their Orchards or Gardens, that the Smoke may either poiſon the Inſects, or their Eggs, as they paſs along. It may be added, that theſe Fires are often

made

made with good Succeſs to deſtroy the Caterpillars, even after they are hatched, and have begun to devour the Trees. Another Method of preſerving Trees, &c. from Blights is, by ſprinkling Tobacco-duſt, Tobacco-water, Pepper-duſt, &c. which is preſent Death to all Inſects and Animalcules. It is ſaid that Lime, in fine Powder, or Lime-water, made very ſtrong, anſwers the ſame End.

Hair; the Art and Management in manufacturing it; ſuch as curling, colouring, &c.—The Merits of good Hair conſiſt in its being well fed, and neither too coarſe, nor too ſlender; the Bigneſs rendering it leſs ſuſceptible of the artificial Curl, and diſpoſing it rather to frizzle, and the Smallneſs making its Curl of too ſhort Duration. Its Length ſhould be about 25 Inches; the more it falls ſhort of this, the leſs Value it bears. Hair has no certain Price; it is ſold from under 5*s.* to (as has been aſſerted) near 5*l.* an Ounce. The Scarcity of grey and white Hair, has put the Dealers in that Commodity upon Methods of reducing other Colours thereto: This is done by ſpreading the Hair to bleach on the Graſs, like Linnen, after waſhing it out in a lixivious Water; which Lee, with the Force of the Sun and Air, brings the Hair to ſo perfect a Whiteneſs, that the moſt experienced Perſon may be deceived therein; there being ſcarce any Way of detecting the Artifice, but by boiling and drying it, which leaves the Hair of the Colour of a dead Walnut-tree Leaf. There is alſo a Method of dying Hair with Biſmuth, which renders ſuch white Hair that borders too much of the Yellow, of a bright Silver Colour: Boiling is the Proof of this too, the Biſmuth not being able to ſtand it. Hair which does not curl or buckle naturally, is brought to it by Art; by firſt boiling, and then baking it in the following Manner: After having

pick'd

pick'd and ſorted the Hair, and diſpos'd it in Parcels, according to the Lengths, they roll them up, and tie them tight down, upon little cylindrical Inſtruments, call'd Pipes; in which State they are put in a Pot over the Fire, there to boil for about two Hours. When taken out, they are to be dry'd, and afterwards ſpread on a Sheet of brown Paper, and covered with another; then make a Cruſt of rough Paſte about them, and ſend them to be baked. The End by which an Hair grew to the Head, is called the Head of the Hair; and the other, with which they begin to give Buckle, the Point. Formerly the Perruke-makers made no Difference between the two Ends, but curled and wove them by either indifferently, which made them unable to give a fine Buckle, Hair wove by the Point never taking the right Curl; and Foreigners own themſelves obliged to the Engliſh for this Diſcovery, which was firſt carried abroad by a Perruke-maker of our own Country. The moſt Ingenious in the Hair Buſineſs acknowledge, that if the Liquid for changing the Colour of Red Hair (ſee p. 84.) had half an Ounce of Biſmuth added to the other Ingredients, it would be an incomparable Article: It is held in the higheſt Eſteem by Ladies of the firſt Rank in France; and there are ſeveral who not only get a handſome Livelihood by the Sale of this Liquid, but many have got conſiderable Fortunes. It moſt certainly anſwers the End it is deſign'd for; and not only that, but it is very excellent in making the Hair both grow and curl. It is far beſt, if uſed warm, and then it will not ſoil the whiteſt Linnen, nor require ſuch frequent Applications, as when us'd cold.

For preſerving from Ruſt — Take an Eel, fry it, preſs out the Oil, and rub your Furniture (in Metal) therewith.

To make Artificial Thunder and Lightening — Mix a Quantity of the Spirit of Nitre and Oil of Cloves, the leaſt Drop of the former, is ſufficient; as to Quantity, in the latter, you need not regard; for, when mixed, a ſudden Ferment, with a fine Flame, will ariſe; and ſometimes, if the Ingredients be very pure and ſtrong, there will be a ſudden Exploſion, like the Report of a great Gun. It is a little dangerous to the Perſon who undertakes the Experiment; for when the Effluvia of acid and alkaline Bodies meet each other in the Air, the Fermentation cauſes ſuch a Rarefaction, as makes it difficult to breathe for all who are near it.

To make an Artificial Earthquake — Chymiſtry furniſhes us a Method of making Artificial Earthquakes, which ſhall have all the great Effects of the Natural ones; and, as it may illuſtrate the Proceſs of Nature in the Production of theſe terrible Phænomena under Ground, we here inſert it. Provide 18 or 20 Pounds of Sulphur, and as much of the Filings of Iron, and make them into the Conſiſtence of Paſte with common Water; this being buried under Ground, in eight or ten Hours Time will vomit Flames, and cauſe the Earth to tremble all around the Place, to a conſiderable Diſtance. Such is the Effect of even two cold Bodies, in the cold Ground; there only wants a ſufficient Quantity of this Mixture to produce a real Ætna. If it were ſuppoſed to burſt out under the Sea, it would produce a Water-Spout; and, if in the Clouds, the Effect would be Thunder and Lightning.

To freeze Water, and melt Snow at the ſame Time — Put an Ounce of Salt into an Earthen Pint Pot (to ſome Snow) on a wet Table, or Board; ſtir them together till the Snow is diſſolved (obſerving not to ſhake

ſhake the Pot) and, as the Snow diſſolves, the Pot will freeze to the Table.

Diamonds; how to diſtinguiſh the good from bad— The Goodneſs of Diamonds conſiſts in their Water, or Colour, Luſtre, and Weight: The moſt perfect Colour is the White. Their Defects are Veins, Flaws, Specks of red or black Sand, and a blue or yellowiſh Caſt. In Europe the Lapidaries examine the Goodneſs of their rough Diamonds, their Water, Points, &c. by Day-light; in the Indies they do it by Night; in order to which, a Hole is made in a Wall a Foot ſquare, and therein a Lamp placed, with a thick Wick, by the Light whereof they judge of the Stone, holding it in their Fingers. The Water call'd Cæleſtis, is worſt of all, and yet ſomewhat difficult to diſcover in a rough Diamond. The only ſure Way, is to examine it in the Shade of ſome tufted Tree. As to the diſtinguiſhing Diamonds from other Stones, Dr. Wall has found an infallible Method, which is thus: A Diamond, with an eaſy, ſlight Friction, in the Dark, with any ſoft, animal Subſtance, as the Finger, Woollen, Silk, or the like, appears luminous in its whole Body: Nay, if you keep rubbing for ſome Time, and then expoſe it to the Eye, it will remain ſo a conſiderable Time. If the Sun be 18 Degrees below the Horizon; holding up a Piece of Bays, or Flannel, ſtretch'd tight between both Hands, at ſome Diſtance from the Eye; and another rubbing the other Side of the Bays, or Flannel, pretty briſkly with a Diamond; the Light is much more vivid and pleaſant than any other Way. But what Dr. Wall judges moſt ſurprizing is, that a Diamond, being expoſed to the open Air, in View of the Sky, gives almoſt the ſame Light of itſelf, without rubbing, as if rubbed in a dark Room; but, if in the open Air, you put the Hand, or any Thing

a little

a little over it, to prevent its immediate Communication with the Sky, it gives no Light; and this is a diſtinguiſhing Criterion of a Diamond.

The rough Diamond — Is that not yet cut, but juſt as it comes out of the Mine.

The Brilliant Diamond — Is that cut in Faces both a-top and bottom, and whoſe Table, or principal Face a-top, is flat.

The Roſe Diamond — Is that quite flat underneath, but its upper Part cut in diverſe little Faces, uſually Triangles, the uppermoſt whereof terminate in a Point.

The Table Diamond — Is that which has a large ſquare Face a-top, encompaſſed with four leſſer.

Where found — Diamonds are only found in the Eaſt-Indies, and that only in the Kingdom of Golconda, Viſapour, Bengale, and the Iſland of Borneo. There are four Mines, or rather two Mines, and two Rivers, whence Diamonds are drawn. The Mines are, 1. that of Raolconda, in the Province of Carnatica, five Days Journey from Golconda, and eight from Viſapour. It has been diſcovered about 200 Years. 2. That of Gani, or Coulour, ſeven Days Journey from Golconda, eaſtwardly. It was diſcovered 120 Years ago by a Peaſant, who digging in the Ground, found a natural Fragment of 25 Carats. 3. That of Soumelpour, a large Town in the Kingdom of Bengale, near the Diamond-Mine. This is the moſt ancient of them all; it ſhould rather be called that of Goual, which is the Name of the River, in the Sand whereof theſe Stones are found. Laſtly, the fourth Mine, or rather the ſecond River, is that of Succudan, in the Iſland of Bonneo.

How cut — They are cut and poliſh'd by Means of a Mill, which turns a Wheel of ſoft Iron, ſprinkled over with Diamond-duſt mixed with Oil of Olives. The ſame Duſt, well ground, and diluted with

with Water and Vinegar, is uſed in the ſawing of Diamonds, which is perform'd with an Iron, or Braſs-wire, as fine as a Hair. Sometimes in lieu of ſawing the Diamonds, they cleave them, eſpecially if there be any large Shivers therein: But the Europeans are not uſually ſo daring, or expert enough to run the Riſque of cleaving, for Fear of breaking.

The rough Diamond — Should be choſen uniform, of a good Shape, tranſparent, not quite white, and free of Flaws, and Shivers. Black, rugged, dirty, flawey, veiny Stones, and all ſuch as are not fit for cutting, they uſe to pound in a Steel Mortar, made for that Purpoſe; and, when pulverized, they ſerve to ſaw, cut, and poliſh the reſt.

The fineſt Diamonds now in the World — Are that of the Great Mogul, weighing 279 Caracts; that of the Great Duke of Tuſcany, weighing 139 Caracts; and that known in France under the Name of the *Grand Sancy*, which is one of the Crown Jewels, weighing 106 Caracts, whence its Name *Sancy*, which is a Corruption of *cent ſix*, that is 106. Tavernier, by a Rule which he had made for eſtimating the Value of Diamonds, computes that of the Great Mogul at 11723278 French Livres, equivalent to 779244 Pounds Sterling; and that of the Duke of Tuſcany at 2608335 Livres, or 195374 Pounds Sterling. The following is an exact Rate, or Manner of eſtimating the Value of Diamonds, drawn up by a Perſon well ſkill'd in ſuch Matters; and which, for its Curioſity, as well as the great Uſe it may be of to both Buyers and Sellers, we judge will not be unacceptable.

TABLE

Table Diamonds.

Dutch Cut.

A Diamond weighing	Lib.	Sh	to	L.	Sh Sterl.
1 Gr. is worth —	1	00	to	1	01
1 1 half — —	1	16	to	1	17
2 — — —	2	15	to	3	00
2 1 half — —	3	12	to	3	15
3 — — —	4	15	to	5	00
4 — — —	7	17	to	8	00
5 — — —	15	00	to	15	15
6 — — —	22	00	to	25	00
7 — — —	30	00	to	34	00
8 — — —	42	00	to	45	00
9 — — —	60	00	--	—	—
10 — — —	75	00	--	—	—
12 — — —	112	00	to	120	00
15 — — —	187	00	to	220	00
19 — — —	330	00	to	380	00
24 — — —	450	00	to	—	—
30 — — —	700	00	to	735	00
40 — — —	1500	00	to	1800	00
50 — — —	3500	00	to	4500	00
60 — — —	4500	00	to	5620	00

Antwerp Cut.

A Diamond weighing 1 Gr. is worth	Lib. Sh to	L. Sh Sterl.
1 1 half — —	0 15 to	0 18
1 — — —	1 06 to	1 10
2 — — —	2 02 to	2 05
3 — — —	3 12 to	3 15
4 — — —	6 00 to	6 07
5 — — —	10 10 to	11 05
6 — — —	13 10 to	15 00
7 — — —	18 15 to	22 10
8 — — —	24 00 to	26 00
9 — — —	33 15 --	— —
10 — — —	37 00 to	40 00
12 — — —	55 00 to	58 00
15 — — —	112 00 to	130 00
18 — — —	247 00 --	— —
24 — — —	315 00 --	— —
40 — — —	900 00 to	970 00
50 — — —	2200 00 to	2300 00
60 — — —	3500 00 to	4520 00

It muſt be obſerved, however, that Defects in the Water, or Shape; red, or black Spots; Shivers, and other Failings, frequently found in theſe Stones, reduce the Price by one Third, and ſometimes much more. As to Brilliant Diamonds of very ſmall Cut, the Price is always leſs by one Third, than that of Diamonds of a larger Cut, tho' the Weights be the ſame: The Reaſon is, that the latter ſhew themſelves a great deal more, when ſet in their Collets, than the former. Attempts have been made to produce artificial Diamonds, but with no great Succeſs. There are factitious Diamonds made in France, call'd Temple-Diamonds, but they are little valued.

To make an excellent Blacking-Ball for Shoes —Mutton-Suet four Ounces; Bees-wax one Ounce; Sugar-candy and Gum-arabic, one Drachm each, in fine Powder; melt theſe well together over a gentle Fire, and add thereto about a Tea-ſpoonful of Turpentine, and Ivory, or Lamp-Black, ſufficient to give it a good Black. While hot enough to run, you may make it into a Ball, by pouring the Liquid into a Tin-mould; or let it ſtand till almoſt cold, and you may mould it into what Form you pleaſe by the Hand. Many People make uſe of hard Soap as a chief Ingredient in making Blacking-Balls, without conſidering that the Salts all Soaps abound with, are very deſtructive to Leather in general.

De Burgh's Blacking-Ball, that will keep out Wet ſeveral Days — Mutton-Suet four Ounces; Bees-wax two Ounces; Turpentine one Drachm; white Roſin a Quarter of an Ounce; pure Cream a large Spoonful: Theſe are all to be well incorporated together in a glaz'd Veſſel over a ſlow Fire, and then add thereto half a Drachm of Turpentine-varniſh: This is to be brought to a good Black by Lamb-black only, it preventing this Ball from growing hard and dry far better than Ivory-black. It may now be work'd by Hand (while warm) into what Form you like beſt. Boots or Shoes are to be firſt well clean'd, and then the Ball to be us'd with a ſoft Bruſh, near the Fire, or over a Steam from hot Water, otherwiſe it will be found too ſtiff for the Purpoſe. This is the famous Ball that is in great Eſteem by the Nobility for cleaning Coaches, Chariots, &c. And De Burgh aſſures us, that if the Soals of Shoes or Boots be well rubb'd over with this Mixture, while it is in Liquid, ſuch Shoes or Boots will wear more than double the Time they would without being ſo managed. He directs, that the Soals ſhould be firſt well clean'd from Dirt,

and

and afterwards hung up near the Fire, that the Mixture may the better penetrate the Leather.

A Liquid Blacking — Is made of the Grounds of Ale, colour'd with Lamp-black: This looks beautiful, and drys ſoon; but is as prejudicial to the Leather as the Ball where Soap is an Ingredient. See the excellent Liquid Blacking, p. 73.

Uſeful Prognoſticks of the Weather (far more certain than the beſt Weather-Glaſs, or Shepherd of Banbury's Obſervations) by Lord Bacon, the learned Dr. Samuel Clarke, Mr. Derham, &c. — We do not here mean to obtrude the idle, arbitrary Obſervations of whimſical People upon our Readers: That Cloud of popular Predictions from the Brute World, which partly the Sagacity, and partly the Credulity of our Countrymen have eſtabliſh'd, we ſet aſide, as not flowing from any natural, neceſſary Relations, that we know of, in the Things themſelves. Firſt, then, a thick, dark Sky, laſting for ſome Time, without either Sun, or Rain, always becomes firſt fair, then foul; *i. e.* changes to a fair, clear Sky, ere it turn to Rain. This, the Rev. Mr. Clarke, who kept an exact Regiſter of the Weather for thirty Years, ſince put into Mr. Derham's Hands by his Grandſon, the learned Dr. Samuel Clarke; this, he ſays, he ſcarce ever knew to fail; at leaſt, when the Wind was in any of the eaſterly Points: But Mr. Derham has obſerved the Rule to hold good, be the Wind where it will; and the Cauſe is obvious: The Atmoſphere is replete with Vapours, which, tho' ſufficient to reflect and intercept the Sun's Rays from us, yet want Denſity to deſcend; and while the Vapours continue in the ſame State, the Weather will do ſo too. Accordingly, ſuch Weather is generally attended with moderate Warmth, and with little or no Wind to diſturb the Vapours, and an heavy Atmoſphere to

ſuſtain them; the Barometer being commonly high. But when the Cold approaches, and, by condenſing, drives the Vapours into Clouds, or Drops, then Way is made for the Sun-beams; till the ſame Vapours, being by further Condenſation form'd into Rain, fall down into Drops. 2. A Change in the Warmth of the Weather, is generally follow'd by a Change in the Wind. Thus, the northerly and ſoutherly Winds, commonly eſteemed the Cauſes of cold and warm Weather, are really the Effects of the Cold or Warmth of the Atmoſphere; of which Mr. Derham aſſures us, he had ſo many Confirmations, that he makes no Doubt of it. Thus it is common to ſee a warm ſoutherly Wind ſuddenly changed to the North, by the Fall of Snow or Hail; or to ſee the Wind, in a cold froſty Morning, north, when the Sun has well warm'd the Earth and Air, wheel towards the South; and again turn northerly or eaſterly in the cold Evening. 3. Moſt Vegetables expand their Flowers and Down in ſun-ſhiny Weather, and towards the Evening, and againſt Rain, cloſe them again; eſpecially at the Beginning of the Flowering, when their Seeds are tender and ſenſible. This is viſible enough in the Down of Dandelion, and other Downs; and eminently in the Flowers of Pimpernel; the Opening and Shutting of which, Gerard obſerves, are the Countryman's *Weatherwiſer*, whereby he foretels the Weather of the following Day: The Rule is, if the Flowers be cloſe ſhut up, it betokens Rain and foul Weather; if ſpread abroad, the contrary. The Stalk of Trefoil, my Lord Bacon obſerves, ſwells againſt Rain, and grows more upright: And the like may be obſerved, tho' not ſo ſenſibly, in the Stalks of moſt other Plants. He adds, that in the Stubble-fields there is found a ſmall red Flower, call'd by moſt Country People *Wincopipe*; which opening in a Morning,

Morning, is a ſure Indication of a fair Day. That Vegetables ſhould be affected by the ſame Cauſes that affect the Weather, is very conceiveable, if we conſider them as ſo many Hygrometers, and Thermometers, conſiſting of an infinite Number of Trachæ, or Air-veſſels, by which they have an immediate Communication with the Air, and partake of its Moiſture, Heat, &c. Theſe Trachæ are very viſible in the Leaf of the Scabioſe, Vine, &c.

The Manner of making and mounting Fans—Fans are either made with a double or ſingle Paper. If the Paper be ſingle, the Sticks of the Mounting are paſted on the leaſt ornamental Side; if double, the Sticks are ſew'd betwixt them. Before they proceed to place the Sticks, which they call *mounting the Fan*, the Paper is to be plaited in ſuch Manner, as that the Plaits may be alternately inward and outward. It is in the Middle of each Plait, which is uſually about an Inch broad, that the Sticks are to be paſted; which again, are all to be joined and rivetted together at the other End: They are made very thin, and ſcarce exceed one Third of an Inch in Breadth; and where they are paſted to the Paper, are ſtill narrower, continuing thus to the Extremity of the Paper. The two outer ones are bigger and ſtronger than ordinary. The Number of Sticks rarely exceed 22, which are uſually provided by the Cabinet-makers, or Toy-men; tho' there are People make it their chief Buſineſs to make Fan-ſticks. The Fan-painters plait the Papers, paint and mount them. The common Painting is Leaf-gold, applied on a Silver ground, both prepared by the Gold-beaters. Sometimes they paint on a Gold-ground, but it is very rare, true Gold being too dear, and falſe too paltry. To apply the Silver-leaves on the Paper, they uſe a Compoſition, which they pretend is a great

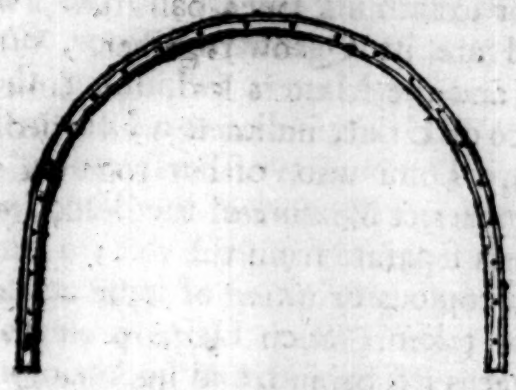
Secret, but which appears to be no other than Gum-arabic, Sugar-candy, and a little Honey melted in common Water, and mixed with a little Brandy. This Compoſition is laid on with a Spunge; then laying the Silver-leaf thereon, and preſſing them gently down, with a Linnen-ball ſtuffed with Cotton, they catch hold, and grow together. When, inſtead of Silver, Gold-ground is laid, the ſame Method is obſerved. The Ground being well dried, a Number of the Papers are well beaten together on a Block, by which Means the Silver, or Gold, get a Luſtre, as if they had been burniſhed.

How to make the Elixir of Life — Take of Gum Guaiacum eight Ounces, Balſam of Peru half an Ounce, rectify'd Spirit of Wine one Quart; digeſt them in a Sand-heat four Days; then ſtrain off the Tincture, and add to it two Drachms of diſtilled Oil of Saſſafras; tho' this laſt Article is often omitted. This is the Elixir that bears the Names of *Elixir of Life*, *Friar's Balſam*, *&c.* and has nothing more to recommend it, than an extravagant Price and a Patent. It is almoſt a Miracle of Medicine in any freſh Cut or Wound, either in Man or Beaſt; and has really moſt of the good Qualities the Quack Venders ſo much boaſt of, and for which they make the Unwary pay ſo extravagantly dear, that (from Priſons) theſe Intruders in Medicine have ſtepp'd into their Coaches. There is very little Trouble in the Preparation of this valuable Medicine; and more may be made for one Shilling, than can be bought for ten.

A certain Method of preventing the Teeth from being uneven or bad, by Sig. Curzoni, Operator for the Teeth and Gums — When the Child is going to ſhed the firſt Teeth, take Care to have them diſplac'd as ſoon as they become looſe, or they will prevent the new Teeth from growing up regularly. If this ſhould

not

not have the deſired Effect, and that they are uneven both above and below, have two circular Plates of Silver, in the Shape and according to the Dimenſions of the Gums, with Holes drill'd thro' (as in the Fig.) according to the Number of Teeth; put theſe to the



Gums, and with a Thread of ſtrong Silk tie thoſe Teeth which ſtand in as tight as the Child can bear without much Pain; let the Child wear this for three or four Days, then take it off, and clean the Teeth and Gums with a Waſh made of one Drachm of Spirit of Salt mix'd with half an Ounce of Water; then tie them again, by which Means the Teeth that ſtand in will be drawn forward, and if any ſtand out, they will be puſhed up even; till the Gums, by the Uſe of the above Tincture, will grow up and fix them. This being done, and the Teeth in both Jaws brought to fall directly upon each other, if you obſerve any Tooth ſtand up higher than the reſt, take it down till it is even with a ſmall File; and having thus brought them into a regular State, they will continue to wear even: No other Care will afterwards be requir'd, but to clean them occaſionally with the Tincture, which is greatly ſuperior to any of the Quack Medicines ſo much boaſted of. See the Cure for the Tooth-ach, p. 106.

The celebrated Doctor of Witch, his Method of Caſting Urine; Diſorders known by it; and great Cures perfected—The Urine affords one of the principal Criterions, or Signs, whereby Phyſicians judge of the State of the Patient, and Courſe of the Diſeaſe. In caſting, or examining the Urine, the Things to be conſidered are its Quantity, Colour, Smell, Taſte, Fluidity, and the Matters ſwimming therein. An Abundance of Urine, indicates a Looſeneſs of the renal Pipes, a Diminution of Perſpiration, Sweat, Saliva, an imperfect Mixture of the Blood, whereby the watery Parts ſeparate from the reſt; a nervous Indiſpoſition, a copious drinking of ſome aqueous Liquid, or Diuretic taken. Such Urine preſages a Thickneſs of what is left behind, and its Acrimony; Thirſt, Anxiety, Obſtructions, and their Effects, a dry, thirſty, hot Conſumption. A contrary State of the Urine, indicates the Contraries; and preſages future Repletions, Heavineſs, Drouſineſs, convulſive Tremors, &c.

Thin, limpid, inſipid, colourleſs, taſteleſs Urine—Denotes a great Conſtriction of the Renal Veſſels; and, at the ſame time, a briſk Agitation of the Humours; a ſtrong Coheſion of the Oil, Salt, and Earth in the Blood itſelf, and an imperfect Mixture of the aqueous Parts therewith; ſome grievous Indiſpoſition of the Mind, a hyſteric or hypochondriac Fit; a Debility of the Viſcera; Crudity, Pituita, Obſtructions of the Veſſels; and, in acute Diſeaſes, a Want of a Coction and Criſis. Such Urine portends much the ſame as a too copious Urine; and, in acute inflammatory Diſeaſes, a bad Condition of the Viſcera, Deliria, Phrenſies, Convulſions, Death.

Ruddy Urine, without any Sediment, in acute Diſeaſes, indicates a violent Motion and Attrition among the Parts that conſtitute the Humours, and between the Veſſels and the Humours; a cloſe intimate Mixture

ture of the Oil, Salt, Earth, and Water in the Humours; and hence a great Crudity of the Diſeaſe, and its long Duration, and great Danger. Such Urine preſages gangrenous Obſtructions of the fineſt Veſſels, chiefly thoſe of the Brain and Cerebel, and thence Death: A difficult Coction; a ſlow, doubtful Criſis; and all theſe the worſe, as the Urine is redder, and freer of Sediment. If there be a heavy copious Sediment, it ſhews a ſtrong, antecedent Attrition, looſe Veſſels, ſharp, ſaline, colliquated Blood, unfit for Nutrition, intermitting Fevers, and Scurvy. *The Preſages are*, the Durableneſs of the Diſeaſe, Wearing of the Veſſels, Weakneſs, colliquative Sweats, Saliva, Atrophy, and Dropſy. If the Sediment in ſuch Urine be branny, ſcaly, filmy, &c. it preſages the like.

Yellow Urine, with a thick Sediment, as before — Denotes a Jaundice, and the Symptoms thereof in the Cutis, Stools, Hypochondriums, &c.

Green Urine, with a thick Sediment — Denotes an atrabilary Temperature, and that the Matter thereof is reſolved, and now excreted; conſequently Anxieties about Præcordia, Perturbations of Stool, iliac and colic Pains.

Black Urine — Denotes the ſame with the Green, only in a greater and worſe Degree.

Blood, Pus, Carbuncles, Filaments, Hairs, Anquillæ, Grumæ, Sands, Parts of Stones, and a Mucus at the Bottom of the Urine — Denote ſome Diſorder in the Kidneys, Ureters, Bladder, Teſticles, Seminal Veſicles, Proſtatæ, and Urethra.

Fatty Urine — Generally breeds ſmall Sands, adhering to ſome viſcid Matter, and thus produces a ſort of oily Membrane, or Pellicle, which denotes an Abundance of Earth, and a heavy Salt in the Blood, and preſages the Scurvy, Stone, &c.

Fetid Urine — Denotes the Salts and Oils to be attenuated,

tenuated, diſſolved, and almoſt putrified; whence very great Danger, both in chronic and acute Diſeaſes.

Urine which, when ſhook, retains its Froth long— Denotes a Tenacity of the Mixture, and thence a Difficulty of Criſis; and pulmonic Diſeaſes, or Catarrhs in a Head.

But the Urine is chiefly conſulted in acute Fevers, where it is a very ſure Sign: For, 1. Urine with a white, light, equable, turbinated, inodorous Sediment through the whole Courſe of the Diſeaſe to the Criſis, is a very good Preſage. 2. Copious, white, ſtrangurious Urine, with much white Sediment, emitted at the Time of the Criſis, cures and takes away Abſceſſes. 3. A thin, ruddy Urine, that does not ſubſide a white, thin, watery Urine; a thin, equable, yellow Urine; a turbid Urine, that does not ſubſide, denotes, in very acute Diſeaſes, a great Crudity, a difficult Criſis, and a durable dangerous Diſeaſe.

N. B. Urine is of excellent Uſe, as a Manure, in Agriculture: And the more Experienced in Gardening, prefer Urine for Land, Trees, &c. before Dung, as penetrating better to the Roots, and removing divers Infirmities of Plants. The Decay of the ancient Kentiſh Pippins, is a Thing much complained of; and Mr. Mortimer obſerves, they will be quite loſt, unleſs ſome Perſons ſet themſelves to the ancient Way of Culture; which, as all ancient Gardeners, Graziers, &c. know, was by waſhing the moſſy, worm-eaten, cankared, and unſound Trees, two or three times in the Month of March, with the Urine of Oxen, &c. gathered in Earthen Veſſels, placed under the Planks of the Stalls wherein they were fatted. In Holland, and in divers other Parts, they preſerve the Urine of their Beaſts, &c. with as much Care as their Dung. Mr. Hartlib, Sir Hugh Plat, Mr. Mortimer, &c. make a common Complaint, that ſo great an

Improver

Improver of Land, and ſo remarkable a Strengthener of Manure, ſhould be ſo much diſregarded among us.

A curious Account of the Sympathetick Inks, by Mr. Boyle, and Mr. Lemery — 1. To two or three Parts of unſlacked Lime, put one of yellow Orpiment; powder and mix them both, adding fifteen or ſixteen times as much Water as there was Orpiment; ſtop up the Vial with a Cork and Bladder, and ſet it in warm Embers. Shake the Vial now and then for five Hours, and warily decant the clear Part, or rather filtrate it. In the mean Time burn a Piece of Cork thoroughly, and when well inflamed, quench it in common Water, or rather in Brandy: Being thus reduced into a friable Coal, grind it with fair Water, wherein Gum-arabic has been diſſolved; and it will make a Liquor as black as the common Ink. While theſe Things are doing, diſſolve in three times as much diſtilled or ſtrong Vinegar, over warm Embers, a Quantity of Red-lead; or of Saccharum Saturni, in thrice the Quantity of Water, for three or four Hours, or till the Liquor have a ſweet Taſte; which Liquor will be as clear as common Water. The Liquors thus prepared, write any Thing on Paper with this laſt Sort; dry it, and nothing will appear. Over the Place write what you pleaſe with the ſecond Liquor, it will appear as if written with common Ink: When dry, dip a ſmall Piece of Rag or Spunge in the firſt Liquor, rub it over the written Place, and the black Writing will vaniſh, and that wrote with the inviſible Ink, appear black and legible. Again, take a Book four or five Inches thick, and on the firſt Leaf write any Thing with the laſt Liquor: Turn to the other End of the Book, and rub there with a Rag dipt in the firſt Liquor, on that part, as near as you can gueſs, oppoſite to the Writing; and leave alſo the Rag there, clapping a Paper over

over it; then nimbly ſhutting the Book, ſtrike four or five ſmart Strokes thereon with your Hand, and turning the other Side uppermoſt, clap it into a Preſs, or lay it under a good Weight for a Quarter of an Hour, or even half that Time, then will the Writing done with the inviſible Ink be found white and legible.

2. Diſſolve white or green Vitriol in Water, and writing with the Solution, nothing will appear. Boil Galls in Water, and dip a Linnen Rag in the Decoction, and with it rub the Place before writ, and it will appear black and legible. Rub it over again with Spirit of Vitriol, or its Oil, and the Writing will diſappear again: Rub it over again with Oil of Tartar per Deliquium, the Letters will appear again, but of a yellow Colour.

Sir Hans Sloane's valuable Liniment for ſore Eyes— Take of prepared Tutty one Ounce; of Lapis Hæmatites prepared two Scruples; of the beſt Aloes prepared twelve Grains; of prepared Pearl four Grains. Put them into a Porphyry, or Marble Mortar, and rub them with a Peſtle of the ſame Stone very carefully, with a ſufficient Quantity of Viper's Greaſe, or Fat, to make a Liniment; to be uſed daily, Morning, or Evening, or both, according to the Conveniency of the Patient. This Receipt was purchaſed by Sir Hans Sloane of a Perſon who had it from Dr. Rugeley, and ſince publiſhed by him, in a Pamphlet wrote for that End, wherein he highly extolls it, and aſſures us, that almoſt all Diſorders of the Eyes are certainly cur'd by this grand Remedy.

Monſ. Rouillé's incomparable Lip-Salve — Orange-butter one Drachm; Conſerve of Jeſſamine, Sperma-Ceuti, and Tincture of Corral, each half a Drachm; Honey-water twenty Drops. Grind theſe well togein a Marble-mortar, and uſe it Morning and Evening.

THE

THE

GARDENER's LEGACY.

Containing ALL the

INSTRUCTION neceſſary for the Cultivation of the Fruit, Flower, and Kitchen GARDEN:

Together with many choice Improvements reſulting from near fifty Years Experience.

By EDWARD KNIGHT, upwards of Forty Years Principal Gardener to Two Noble Families.

INTRODUCTION.

USEFUL Improvements in the Art of Gardening are ſo intereſting to almoſt every Individual, that I have been led to conſider the Reſult of my Experience as a Debt due to the Publick: This Conſideration alone, has induc'd me to lay aſide every ſiniſter View of private Emolument, when obtain'd by concealing that which might be productive of univerſal Utility. And as I have no Vanity to gratify, by being recorded as a voluminous Writer, I have confined myſelf to ſuch Inſtructions only as are of *real Uſe*.

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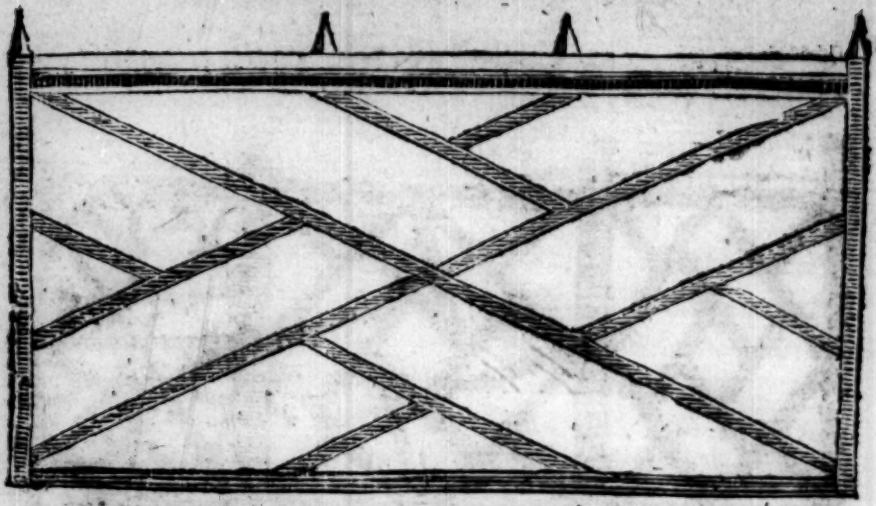
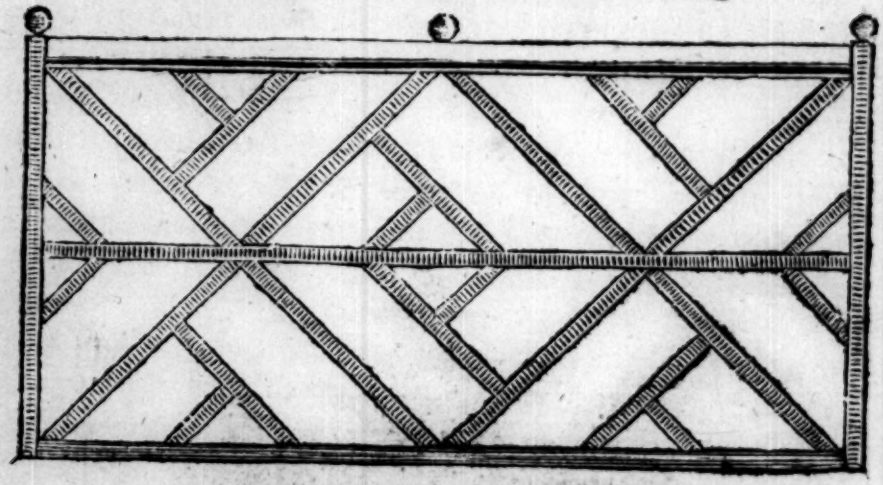
As it would be abſurd to ſay any Thing in Favour of an Art, the Purſuit whereof is well known to afford Health, Pleaſure, and Profit; it would appear altogether as unneceſſary to ſhew the Advantages ariſing from this Method of faithfully reducing the proper Inſtructions requiſite in Gardening to a ſmall Compaſs; ſince it will be univerſally allow'd that this is the beſt Method of aſſiſting the Memory without perplexing the Mind. I ſhall therefore avoid ſaying any thing in favour of this Undertaking, and only inform my Readers that I have divided this Treatiſe under the different Heads of the Fruit, the Flower, and the Kitchen Garden; and for the more ready finding out each Particular, have rang'd them alphabetically under each Head. And thus much I ſhould have thought ſufficient by way of Introduction, had I not been preſs'd by a particular Friend, to whom I muſt in Gratitude acknowledge the greateſt Obligations, to give a few Specimens of our preſent moſt elegant Encloſures for Gardens, by the various Sorts of *Chineſe Paling:* This Requeſt I was the more readily induc'd to comply with, ſince there is no Kind of Encloſure better adapted to the Gratification of every one's Taſte, as it is conſtructed by *Fancy*, and conſiſts not in *Order* or *Regularity*, may ſerve as an Out-fence, or an Eſpalier; for where Strength is required, it appears light and eaſy to the Eye; and, where Elegance is wanted, it has the wiſh'd for Effect.

To theſe *Palings* I have alſo added a *Summer Houſe* and *Bridge* in the ſame Taſte; which, when plac'd to Advantage, will be found to have their real Beauties. The *Paling* for this Arch-work will make it unneceſſary to add any Thing for a Flight of Stairs, as this will be proper for that Purpoſe, or any Place where there is an Aſcent.

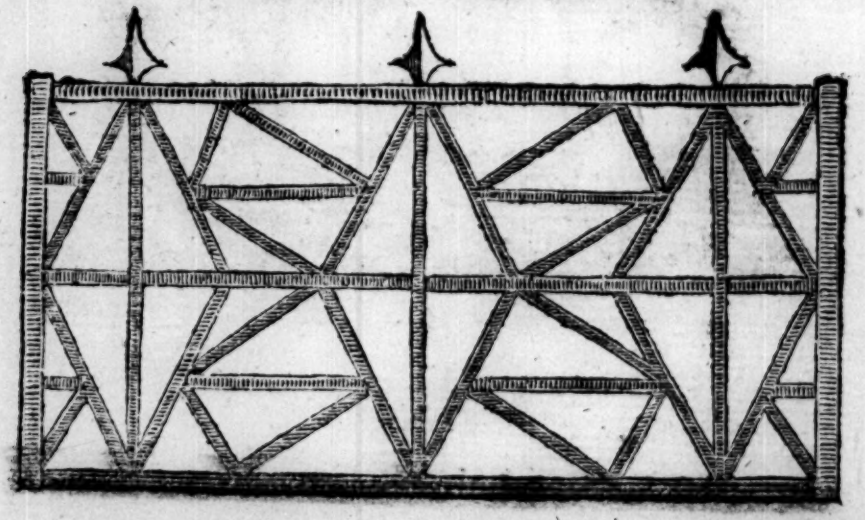
A Chineſe Double-Brat'd Paling.



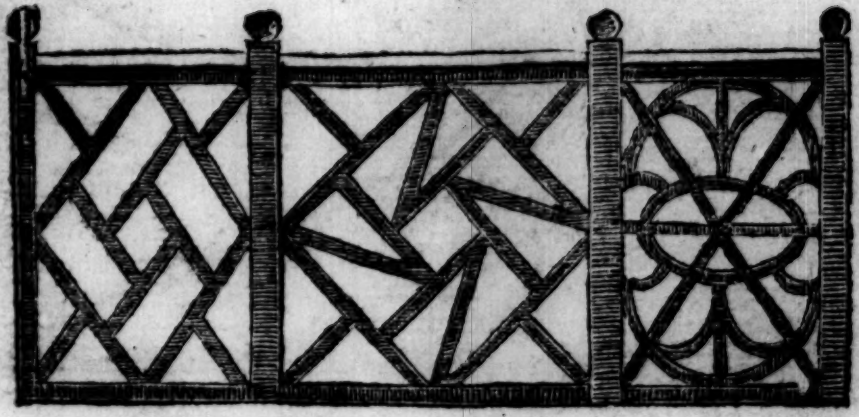
A Chineſe Obtuſe and Diamond-Paling.



A Chineſe Acute Angular-Paling.

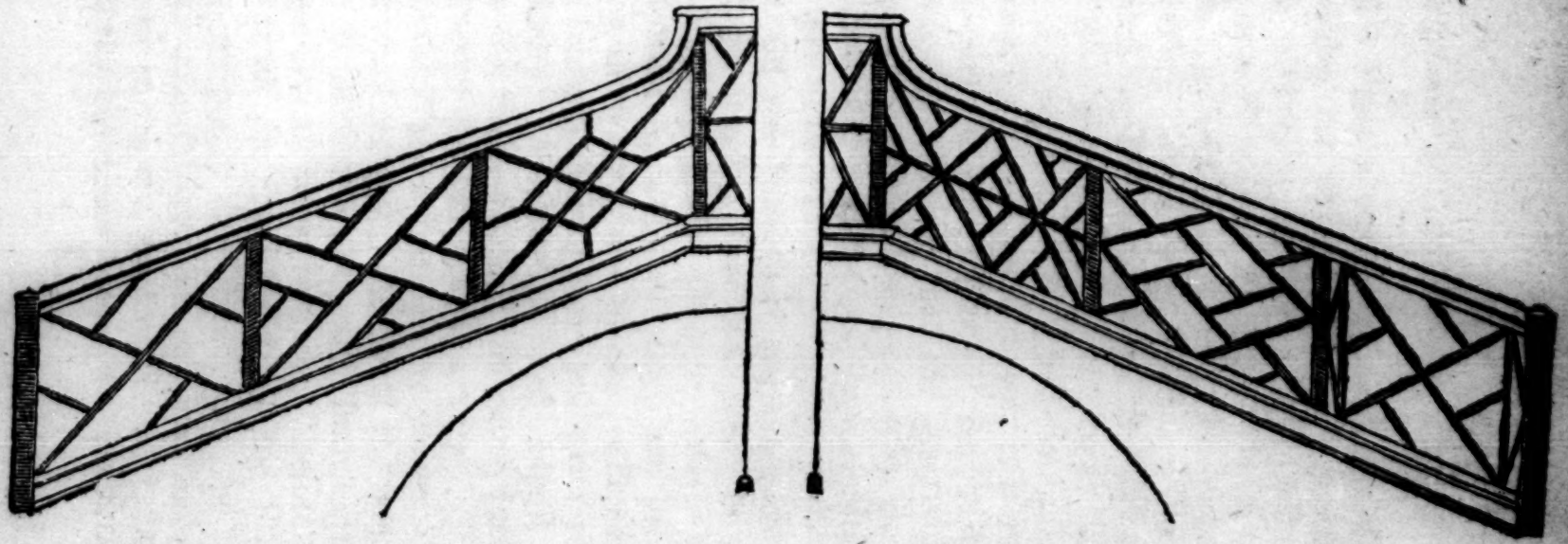


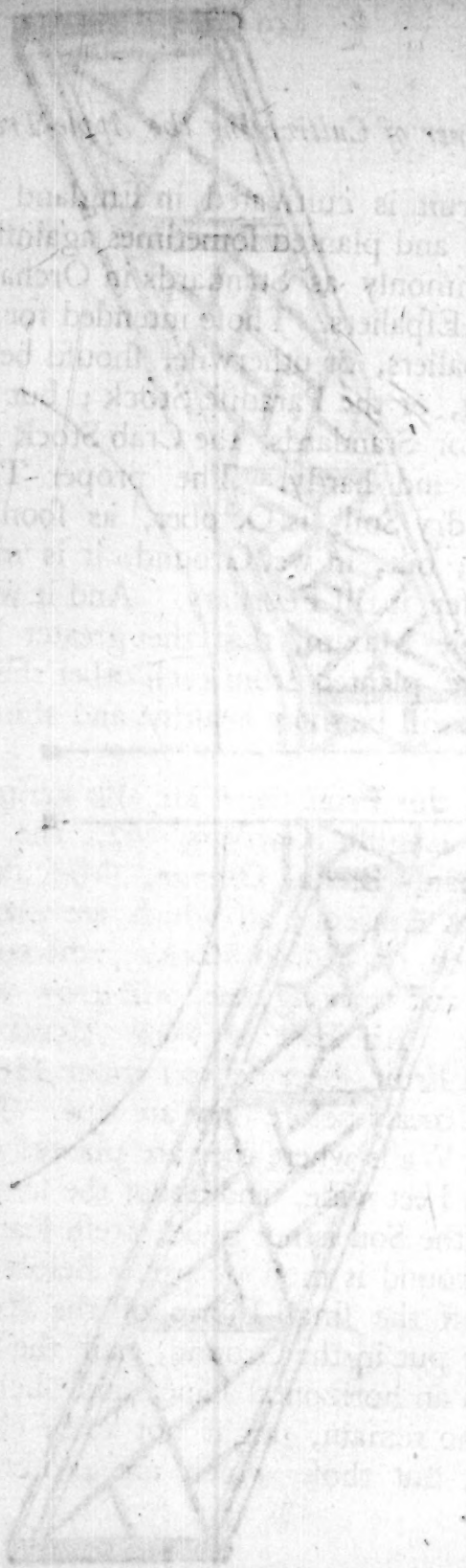
A Chineſe Hatch, &c.



A Summer-Houſe in the Chineſe Taſte.

CHINESE BRIDGE.





The Manner of Cultivating the Apple-Tree.

THIS Fruit is cultivated in England in great Variety, and planted ſometimes againſt Walls, but more commonly as Standards in Orchards and Gardens, or in Eſpaliers. Thoſe intended for Dwarfs, whether in Eſpaliers, or otherwiſe, ſhould be grafted on the Codling, or the Paradiſe Stock; but if they are intended for Standards, the Crab Stock is much more durable and hardy. The proper Time for planting, in a dry Soil, is October, as ſoon as the Leaves are off; but, in wet Ground, it is moſt adviſeable to defer it till February. And it will ſerve as an invariable Maxim, that the greater Diſtance Fruit Trees are planted from each other the better; ſince the Trees will be more healthy, and afford much larger Crops.

Apricot. Of this Fruit there are alſo various Sorts cultivated in Engliſh Gardens, viz. the Algier, Turkey, Roman, Breda, Orange, Maſculine, and the Tranſparent Apricot; all which are propagated by budding them on Plumb Stocks; whereon, if the Stocks be free and thriving, they will grow with very little Difficulty. An Eaſt or Weſt Aſpect is moſt ſuitable to this Fruit, becauſe too much Heat is apt to make them mealy before they are ripe. The Borders under the Walls where they are planted ought to be at leaſt two Feet wide, and about the ſame Depth of Earth: If the Soil is not good, freſh Earth from dry Paſture Ground is moſt proper. Before they are planted, cut off the ſmall Fibres of the Root, and after they are put in the Ground, nail the Branches to the Wall in an horizontal Line, and ſuch Shoots as are proper to remain, ought not to be check'd in their Growth, but thoſe which are produc'd fore-

right, may be occaſionally taken off, to prevent their hanging from the Wall. At Michaelmas, when the Growth is ceaſed, looſe the Branches from the Wall, and ſhorten them according to their Strength; a weak Branch ſhould be cut to about five or ſix Inches, and a ſtrong one to about eight or nine; after this, nail them again in an horizontal Poſition, becauſe they bud beſt. Obſerve this Method every Year, whereby the Tree may be kept full of bearing Wood, inſtead of being confined to the Ends of each Branch only. Bloſſoms are produc'd from the Spurs of the two Years Wood, as well as from that of the laſt Year's Growth, as will be found by Experience; therefore great Care ſhould be taken to preſerve theſe in the Summer, but not to leave any Part of the Branches for Snags or Spurs.

Cherry Tree — The different Sorts of this Fruit, which are very numerous, are propagated from budding or grafting into Stocks of the Black or wild Cherry, which are ſtrong ſhooting Plants, and of great Duration. Some of the Ancients uſed to graft this Fruit upon the Laurel Stock, which is ſaid to give the Fruit an agreeable Bitter; but this Experiment is ſeldom try'd in England. The beſt Method of raiſing Stocks, is to take the wild black or red Cherries, when full ripe, and lay them in Sand for the Winter; early in the Spring ſow them in light Ground, and when they appear, take Care to keep them clear of Weeds, refreſhing them frequently with Water, if the Seaſon is dry: They ſhould remain in the Seed-bed till the ſecond Autumn after ſowing; and in October plant them in Rows, about three Feet aſunder, in good freſh Ground. The ſecond Year after planting, they will be fit to bud. The Sorts uſually planted againſt Walls, with a South Aſpect, is the Early-May, and May-Duke; the Heart

Heart and common Duke will do upon a Weſt Wall, and the Morello on a North. Morello Cherries are moſt eſteem'd for preſerving, their Juice having a pleaſant ſharp Acid; but this Tree, when planted in a South Aſpect, produces a pleaſant well taſted Fruit. It muſt be obſerv'd, in pruning the Cherry-tree, never to ſhorten the Shoots, becauſe the Fruit is chiefly produc'd at the extreme Parts; therefore in the Spring the Shoots ſhould be trained along the Wall in a horizontal Poſition.

Currant Tree — This Tree is propagated with great Eaſe, by planting the Cuttings any Time from September to March; but they are leaſt liable to Misfortunes when planted about the latter End of September. The fineſt Fruit of this Kind is produced when they are planted againſt Walls, or in Eſpaliers, and the Shoots laid out horizontally.

Fig Tree — The beſt Method of propagating this Plant is from Layers, tho' many Gardeners are accuſtomed to raiſe them from the Suckers of old Trees. In January lay down all the convenient ſtrong Shoots, and they will be fit to tranſplant in twelve Months. A light ſandy Soil is moſt proper; but Land that is cold and wet may be much improv'd by digging it about three Feet deep, and throwing in Rubbiſh from Buildings, or Gravel, about a Foot deep, and then covered with two Feet of Earth. If they are for Standards, little Trouble is requir'd; let them have a South Aſpect, prune them in October, and take off all the ſecond Crop of Figs, which are very detrimental, if left to rot upon the Tree.

Filbert, or Nut-Tree — All Kinds of Nuts are raiſed with very little Difficulty, by ſowing the Nuts; but as it ſeldom happens that thoſe raiſed by this Method prove ſo good as the Nuts they are produc'd

from, it is the ſureſt Method of obtaining the Sorts deſired to raiſe them from Layers, and is alſo the moſt expeditious Way. If you raiſe them from Seed, it is beſt to put the Nuts in Sand all Winter to preſerve them from Vermin.

Grafting — I ſhall firſt ſpeak of the Implements made Uſe of, which are a Knife with a ſtrong Back, a ſmall Hand-ſaw, a Grafting-chiſſel, and ſmall Mallet, and a Penknife to cut the Buds: You ſhould alſo be provided with Clay well prepared, and Baſs-ſtrings, or Woollen-yarn to tie the Grafts. There are various Methods made uſe of according to the Size of the Stock; large Trees are grafted in the Rind, which is call'd Shoulder-grafting; Stocks of about an Inch, or two Inches Diameter, are cleft, and the Buds laid in; and Whip-grafting is made Uſe of where the Stocks are an Inch Diameter, and under, and is the moſt effectual Way of any, and at preſent moſt in Uſe: But as this has been ſo often treated of in Books of Gardening and Agriculture, I ſhall only give the neceſſary *General Directions* with Regard to the Stocks which different Fruits ſhould be grafted upon. All ſuch Trees as agree in Flower and Fruit, will take upon each other: For Example; all Nut-bearing Trees may be ſafely grafted on each other; as in like Manner may the Plumb-bearing Trees, under which Head I reckon not only the ſeveral Sorts of Plumbs, but alſo the Almond, Peach, Nectarine, Apricot, &c. All ſuch Trees as bear Cones will do well upon each other, though they may differ in one being ever-green, and the other ſhedding its Leaves in Winter; as is obſerv'd in the Cedar of Libanus and the Larch-Tree; as alſo the Cherry on the Laurel, or the Laurel on the Cherry. *See Inoculation.*

Gooſe-

Gooſeberry-tree—This Tree is raiſed from Cuttings in like Manner with the Currants, tho' it is very common to plant Suckers; but it has been found by Experience, that moſt Plants raiſed from Suckers are more productive of them than any other, and therefore ought to be avoided. The different ſorts of Gooſeberries are ſo numerous, that it would be difficult to aſcertain how many there are; and new kinds are every Day produced, differing either in Taſte, Shape, or Colour, by ſowing the Seeds; for Seeds of the ſame Tree will be productive of a great Variety of Sorts.

Inoculating, or Budding—This is commonly practis'd upon all Sorts of Stone Fruit; in particular ſuch as Peaches, Nectarines, Cherries, Plumbs, &c. as alſo upon Oranges and Jeſſamines, and is preferable to any Sort of Grafting for moſt Kinds of Fruit. The Method of performing it is as follows: You muſt be provided with a ſharp Penknife, having a flat Haft (the Uſe of which is to raiſe the Bark of the Stock, to admit the Bud) and ſome ſound Baſs-mat, which ſhould be ſoak'd in Water, to increaſe its Strength, and make it more pliable; then having taken off the Cuttings from the Trees you would propagate, you ſhould chuſe a ſmooth Part of the Stock about five or ſix Inches above the Surface of the Ground, if deſign'd for Dwarfs; but if for Standards, they ſhould be budded ſix Feet above Ground: Then with your Knife make an horizontal Cut croſs the Rind of the Stock, and from the Middle of that Cut make a Slit downwards about two Inches in Length, ſo that it may be in the Form of a T: But you muſt be careful not to cut too deep, leſt you wound the Stock: Then having cut off the Leaf from the Bud, leaving the Foot-ſtalk remaining, you ſhould make a croſs Cut about half an Inch below the Eye, and with your Knife

Knife ſlit off the Bud, with Part of the Wood to it, in Form of an Eſcutcheon: This done, you muſt with your Knife pull off that Part of the Wood which was taken with the Bud, obſerving whether the Eye of the Bud be left to it, or not (for all thoſe Buds which loſe their Eyes in ſtripping, ſhould be thrown away, being good for nothing) then having gently rais'd the Bark of the Stock with the flat Haft of your Penknife clear to the Wood, you ſhould thruſt the Bud therein, obſerving to place it ſmooth between the Rind and the Wood of the Stock, cutting off any Part of the Rind belonging to the Bud, which may be too long for the Slit made in the Stock, and ſo having exactly fitted the Bud to the Stock, you muſt tie them cloſely round with Baſs-mat, beginning at the under Part of the Slit, and ſo proceed to the Top, taking Care that you do not bind round the Eye of the Bud, which ſhould be left open. When your Buds have been inoculated three Weeks or a Month, you will ſee which of them are taken; thoſe of them which appear ſhrivell'd and black, being dead; but thoſe which remain freſh and plump, you may depend, are join'd: And at this Time you ſhould looſen the Bandage, which, if not done in Time, will pinch the Stock, and greatly injure, if if not deſtroy, the Bud. The March following you muſt cut off the Stock about three Inches above the Bud, ſloping it, that the Wet may paſs off, and not enter the Stock: To this Part of the Stock left above the Bud, it is very proper to faſten the Shoot which proceeds from the Bud, and would be in Danger of being blown out, if not prevented: But this muſt continue on no longer than one Year, after which it muſt be cut off cloſe above the Bud, that the Stock may be cover'd thereby. The Time for *Inoculating* is from the Middle of June until the Middle of Auguſt,

guſt, according to the Forwardneſs of the Seaſon, and the particular Sorts of Trees, which may be eaſily known, by trying the Buds whether they will come off well from the Wood. But the moſt general Rule is, when you obſerve the Buds form'd at the Extremity of the ſame Year's Shoots, which is a Sign of their having finiſh'd their Spring Growth. The firſt Sort commonly inoculated is the Apricot; and the laſt the Orange-Tree, which ſhould never be done until the Middle of Auguſt. And in doing of this Work, you ſhould always make Choice of cloudy Weather; for if it be done in the Middle of the Day in very hot Weather, the Shoots will perſpire ſo faſt, as to leave the Buds deſtitute of Moiſture. Nor ſhould you take off the Cuttings from the Trees long before they are us'd: But if you are oblig'd to fetch your Cuttings from ſome Diſtance, as it often happens, you ſhould then be provided with a Tin Inſtrument, having a Socket about ten Inches long, and a Cover to the Top, which muſt have five or ſix Holes; in this Socket you ſhould put as much Water as will fill it about two or three Inches high, and place your Cuttings therein in an upright Poſition, ſo that That Part which was cut from the Tree may be ſet in the Water, and ſo faſten down the Cover to keep out the Air; and the Holes in the Cover will be ſufficient to let the Perſpiration of theſe Branches paſs off; which, if pent in, would be very hurtful to them: And you muſt be careful to carry it upright, that the Water may not reach to the Buds; for it is a very wrong Practice in thoſe who throw their Cuttings all over in Water, which ſo ſaturates the Buds with Moiſture, that they have no attractive Force left to imbibe the Sap of the Stock, whereby they very often miſcarry. But before I leave this Head, I beg Leave to obſerve, that tho' it is the ordinary Practice to diveſt the Bud

of

of that Part of the Wood which was taken from the Shoot with it; yet in many Sorts of tender Trees it is beſt to preſerve a little Wood to the Bud, without which they often miſcarry. The not obſerving this, has often occaſion'd ſome People to imagine that ſome Sorts of Trees are not to be propagated by Inoculation; whereas, if they had perform'd it in this Method, they might have ſucceeded, as I have ſeveral times experienc'd.

Mulberry—It has been uſual to raiſe this Tree from Seeds, and from Layers; the Seeds indeed have been always productive of the moſt ſightly Trees, but as theſe have generally proved of the Male Kind, they bear but little Fruit; and thoſe from Layers are moſtly crooked, and troubleſome to form into handſome Trees: But the only Method to have full-grown Trees, and Plenty of Fruit in a few Years, is to take ſome handſome Branches, about as thick as a Man's Thigh, from large Trees in October, when the Leaves are fallen off; cut off the Tops and Boughs, and bark them at the thick End, about eight or nine Inches; plant them in lightiſh Ground, neither wet nor dry, where they will have the Benefit of the Eaſt and South Eaſt Sun, and if they are ſhelter'd from the Weſt and South Weſt Winds, the Fruit will be better preſerv'd. Fix Stakes in the Ground to ſupport them, in order to prevent their being ſhook by the Wind as they are ſtriking Root.

Nectarine—This Tree is cultivated in the ſame Manner as the Peach, to which I ſhall refer my Reader in the following Article.

Peach—We have a prodigious Catalogue of the different Sorts of this Fruit, but I confeſs that I could never convince myſelf that they were all real; however, it muſt be confeſs'd, that though we have not above two Sorts of them Natives of England, yet there

there are many other Species of this Plant in America. But let the Sort be what it will, a good Peach ſhould have theſe Qualities: A firm thick Fleſh, thin Skin, a deep or bright red next the Sun, ſmall Stone, and full of high-flavour'd Juice. The Peach and Nectarine are propagated to the greateſt Perfection by Inoculation upon Stocks of the Muſcle and white Pear Plumb; and ſome of the tender Sorts upon the Apricot and Almond Stocks. The Stocks are fit to bud upon at two Years old: The proper Seaſon is about Midſummer; and great Care ſhould be taken to make Choice of the Cuttings of ſuch Trees as are healthy and free from Blights; for if the Juice of the Tree is diſtempered, it can ſeldom be recovered by any Art. Your Cuttings ſhould be taken from the Trees in a cloudy Day, or when the Sun is gone off. In pruning the Peach or Nectarine, take Care that the Tree be equally furniſh'd with Bearing Wood, and not left too full of Branches. In May rub off the irregular Shoots, and train thoſe that are left in regular Order: This Management will leave room for the Sun to ripen the Fruit, and prepare the young Wood for next Year's bearing. Too much cutting is of great Diſadvantage to this Sort of Trees, their Wood being tender and ſubject to canker by the Wet before they are healed. When the Fruit is ſet, and about the Bigneſs of a Nut, you ſhould carefully look over the Tree, and if they are in Cluſters, thin them till they are at leaſt five or ſix Inches aſunder; for this will not only preſerve the Strength and Vigour of the Tree, but make the Fruit much larger, and better taſted.

Pears—Bud or graft upon Stocks of their own Kind; theſe are called free Stocks, and upon theſe the Fruit is found to proſper beſt; but if they are intended for Dwarfs, it will be proper to check their Growth

Growth by budding or grafting upon the White Thorn or Quince Stock. The Fruit is produced from the Curſons or Spurs; ſo that if the Branches are laid horizontally againſt a Wall, they will be regularly cover'd with Fruit more than twenty Feet from the Stem. The Standards, many of which are very large, are but fickle Bearers; and when they become old, it has often been found neceſſary to bark the Trunk of the Tree quite round two Feet from the Ground, which will throw them into bearing Wood.

Plumb Tree—This Tree grows beſt in a Soil neither very light nor heavy; many Perſons plant them as Standards, but the Fruit is not ſo fair as when planted againſt Walls, and is more ſubject to be blown off. They are propagated by grafting or budding upon the Stocks of any Kind of free-ſhooting Plumb; the proper Time for removing or planting is October or February.

Raſberry—This is a Fruit well known, and eaſily cultivated, as they will grow in any dry Soil. Plant the Succours, in February or March, in Rows, at ſuch a Diſtance as will permit you to walk between when they are grown up, both for the Conveniency of gathering the Fruit, and keeping them free from Weeds. When they have ſtood a few Years, it will be beſt to cut away the old Wood, and leave the young Shoots ſtanding; by which Means the Fruit will be larger, and better flavour'd.

Strawberries—Of theſe there are five Sorts, *viz.* the large *Chili Strawberry*, the *Hautboy*, the *Wood Strawberry*, the Scarlet *Virginia Strawberry*, and the white *Common Strawberry:* The beſt Soil for theſe Plants is a hazly Loam. The Ground ſhould be cleans'd from the Roots of noxious Weeds, and well dug. Plant them in Rows, that you can walk between them conveniently, for they muſt be well water'd

ter'd in the Spring all the Time they are blowing; ſet the Plants about ſixteen or eighteen Inches aſunder, and in Autumn take away all the Strings or Runners, clear them from Weeds, and throw a little fine Earth very thin upon the Beds. Michaelmas is the beſt Time for planting; and they muſt be kept clear of Weeds all the Year.

Walnut Tree. This Tree is beſt rais'd from Seed, and if it is intended for Timber, ought not to be remov'd, as it retards the Growth, and makes them break out in Branches, but if it is cultivated for Fruit, the tranſplanting is of great Advantage. It delights in a rich loamy Soil that is firm, and will thrive well in chalky or ſtony Ground. It is a common Maxim, that this Tree bears beſt for being well beat and wounded, which Notion Mr. Miller ſays is ill founded; but Experience tells us, that whatever Methods are taken, that will cauſe a great Number of young Shoots to break out, Fruit will be plentifully produc'd, and beating is known to anſwer this End. If you would raiſe them from Seed, keep the Nuts in Sand till February before you put them in the Seed-bed.

The Manner of Cultivating Flowers, &c.

Amaranthus — IN the Eaſt and Weſt-Indies this Plant is cultivated in great Variety, but there are not more than ten or eleven Sorts produc'd in Engliſh Gardens: The Seeds of the various Sorts muſt be ſown in February, or March, in a good Hot-bed, covered about four Inches thick with rich light Earth, and they will riſe in about a Fortnight, at which Time you muſt have a ſecond Hot-bed ready to receive them, with a deep Frame, to give Room

Room for their growing: Plant them at the Diſtance of about four Inches, and be careful in tranſplanting that you break not the tender Fibres of the Root. Water them gently, ſo that the Plant break not down, and as they get Strength, give them a little Air in ſerene Weather, to enable them to bear being tranſplanted into Pots. When you tranſplant them into Pots, take Care to ſcreen them from the Sun, and refreſh them frequently with Water; let your Pots be ſhelter'd from the Violence of the ſtrong Winds, as well as the Sun, and water them every Day. The Amaranth is a tender Plant, and muſt be diligently followed, which Trouble, in a fine Seaſon, is recompenc'd by a wonderful large fine Flower, juſtly eſteem'd one of the greateſt Ornaments of a fine Garden.

Aricula — This Flower is produc'd from Seed and from Slips. The Time of ſowing is in Autumn, in a light ſandy Mould, mix'd with rotten Cow-dung, and put in Boxes or Pots. Remove them in March to ſome Part of the Garden, where they will not have too much Sun, and in July they will be large enough to tranſplant. The Spring following they will flower; when you will have an Opportunity of ſeeing which is good, and theſe may be propagated by taking Slips from the Root, when they are in Flower, and tranſplanting them; obſerving that they muſt not have too much Sun in the Summer, nor too much Wet in Winter.

Carnation — It is impoſſible to enumerate the various Sorts of this Flower, ſince ſo many new ones are produc'd every Year from Seed, and are generally call'd by the favourite Name of ſome Nobleman, or the Perſon who rais'd them. The Time for ſowing is in March, in the ſame Kind of Earth as the Aricula: Take Care not to ſow your Seed too thick, and

ſift

ſift ſome fine Mould very thin over the Pots; ſet the Pots where they will receive the Benefit of Morning-ſun only, and refreſh them frequently with gentle Waterings. They will ſoon appear, and may be tranſplanted into Beds, about three Inches diſtant from each other, in July. In a Month's Time it will be proper to tranſplant them a ſecond time at the Diſtance of about ſix Inches, where they may ſtand to flower. Let your Allies that divide the Beds be at leaſt two Feet broad, that you may have Room to go between without hurting the Plants; and when they are in Flower, you will have an Opportunity of ſeeing which is worth propagating; this is done by Layers, which will ſtrike Root ſo as to be fit to remove in about ſix Weeks.

Hollyhock — Theſe Plants are raiſed from Seed, which ſhould be ſowed in March upon a Bed of freſh Earth; when the Plants are come up, and pretty ſtrong, they muſt be tranſplanted into a Nurſery-bed, about eight Inches aſunder, and watered frequently till they have taken Root; after which, keep them clear from Weeds, and they will require no further Care till about Michaelmas, at which Time it is proper to tranſplant them again into Rows two Feet aſunder: Here let them remain till they flower, and ſuch as prove good, may be removed to ornament proper Places. Put down Stakes to prevent the Wind from breaking them down, and when the Stalk decays, cut it off. You ſhould raiſe a freſh Supply every three or four Years, becauſe the Plant grows weaker, and ſhould be dug up in that Time to make Room for young Plants.

Honey-Suckle — This Plant, for the Fragrance of its Smell, Beauty, and long Continuance in Flower, is juſtly admir'd, and is a proper Ornament for a Wall, a Tree, an Eſpalier, or as a Dwarf in a Border.

They are propagated from Layers, or from Cuttings; if from Cuttings, take off Branches that have four Joints, or Buds, and plant them in Rows about 18 Inches a-part; this may be done either in the Spring or Autumn, and when they have ſtood about a Year, they will be fit to tranſplant; or they may ſtand two Years, as is moſt convenient.

Jeſſamine — The Jeſſamine is eaſily propagated by laying down the tender Branches in the Spring, which will be rooted and fit to tranſplant the Spring following. They may alſo be raiſed by planting the Cuttings planted in March in a damp Soil, and ſkreen'd from the Violence of the Sun. This Method is not much practis'd, as the Plants are ſeldom ſo good as thoſe raiſed from Layers.

Jonquill — In England few Perſons have Patience to produce this Flower from the Seed, as it is five Years in coming to Perfection; for which Reaſon the new Sorts are generally the Produce of Holland. Our Method of propagating them is from Off-ſets, or ſmall Roots divided from the old ones: The Time of planting them is about the latter End of September, when they ſhould be planted in Beds or Borders ſeparate from the other Roots, becauſe they require being dug up and tranſplanted every other Year. The Soil which beſt ſuits them is a Hazel Loam, not over ſtiff, nor yet too light; it is alſo remarkable that where they have too rich a Soil, they never continue good; ſo that nothing is requir'd but a freſh loamy Soil, free from Roots and noxious Weeds.

Lilly of the Valley — This Plant delights in ſhady moiſt Ground, and is propagated by ſeparating the Roots, and tranſplanting them early in the Spring, before they begin to ſhoot. This Plant is judg'd worthy of Cultivation for the well-known phyſical Qualities of its Root, as well as Beauty of its Flower,

Flower, and is found in the Woods in ſome Parts of England. We have alſo a double Sort brought from Holland ſome Years ago; but whether produc'd originally from Seed, or found by Accident, is uncertain.

Pinks — Theſe are propagated by Layers in the ſame Manner as Carnations; as alſo by planting Cuttings in July, and by ſowing Seeds. They require very little Care when planted on Borders, only to be well watered while they are blowing; during which Seaſon no Flower has a more beautiful Appearance, or affords a more agreeable Smell.

Polyanthus — This Primroſe, or Polyanthus, may be annually produc'd from Seed, and requires but very little Culture; by this Means too new Sorts are produc'd in great Variety: But if you would have any particular one, it muſt be propagated from a Slip, as the Seed ſcarce ever produced the ſame Kind. The Seed is ripe about the Beginning of June, which is ſeen by the Pods changing brown and opening. The Properties of a good Flower are large upright Stems, producing many Flowers on a Stalk, the Flowers large, beautifully ſtrip'd, and ſuch as open flat. They ſhould be ſown about the Middle of March in a fine light, rich Soil, under a Wall, or Hedge, with a North, or northward Aſpect; as ſoon as they are up in five or ſix Leaves, it will be proper to prick them out in ſhady Borders, where they are intended to blow. The Beauty of theſe Flowers, when the good Sorts are ſelected from the reſt, are not inferior to Ariculas.

Ranunculus — The different Sorts of this Flower are propagated ſome from Seeds, others from the Off-ſets of the Root: For it will be found that the very double Sorts never produce Seed, for which Reaſon the ſame Change cannot be expected. The

Seeds of the other Kinds are ſown about the Middle of March, in Pots, or Boxes, fill'd with fine light Soil, under a Wall, with a South-eaſt Aſpect. After ſowing, ſift a little of the Earth lightly over them, and as the Sun has more Influence, remove them to a cooler Aſpect. The proper Time for planting the Roots is in October: And good Floriſts never blow their Ranunculas two Years in the ſame Earth.

Roſe-Tree — Of this Shrub there are forty-ſix different Kinds, many of which are found in the Hedges in different Parts of England and Scotland; others are of foreign Growth; but they are all hardy enough to bear our Climate, and are propagated by Layers, or Succours, which may be planted out either in the Spring or Autumn: If in the Spring, they ſhould be well water'd, and often.

Snow-Drops — This Plant is eaſily propagated by Off-ſets; for where they remain two or three Years undiſturb'd, each Bud will have ten or a Dozen flowering Roots, and the like Number of Off-ſets. The Snow-Drop is valued, as being the Flower that uſhers in the Spring. They will thrive in almoſt any Soil, and may be planted in any Situation. The beſt Seaſon for tranſplanting them is in May; when they muſt be taken up, and after being dry'd in a ſhady Place, it will be unneceſſary to put it in the Ground again till September, when they ſhould be planted about two Inches deep, and pretty cloſe together, becauſe the Flower is ſmall, and without this makes but a poor Appearance.

Stock-July-Flowers — Some People prefer the planting Slips from the double Sorts of this Flower, but as they ſeldom produce ſtrong Plants, it will be found moſt practicable to raiſe them from Seed in the Month of April, or Beginning of May; they require a light rich Earth, and the Morning Sun:

They

They are indeed ſomewhat ſubject to be deſtroy'd by the Fly; to prevent which, throw a ſmall Quantity of Raddiſh-ſeeds in the Bed, and the Fly will adhere to thoſe only. As ſoon as they are up in five Leaves, tranſplant them into good rich Beds, and let them ſtand till they are about ſix Inches high; frequently refreſhing them with Water, and taking Care that they are not over-powered by the Sun before they ſtrike Root. Here let them ſtand till they ſhew their Bloom, in order to diſtinguiſh which is double, and thoſe that you preſerve muſt be taken up with as much Earth as poſſible to root when you remove them where they are to ſtand.

Sun-Flower — This Plant is raiſed from Seeds, ſown in March, in the ſame Manner as the Holly-hock, to which, for the ſake of avoiding Repetition, I refer the Reader.

Sweet William — There are about ſeven different Kinds of this Flower; the ſingle ones are propagated by Seeds, ſown in the latter End of March in light Earth; which will be fit to tranſplant into Beds, at the Diſtance of about ſix Inches, in May; where they may remain till Michaelmas following, when they may be tranſplanted into the Wilderneſs, or Pleaſure Garden. The double ones are propagated by Layers in the ſame Manner as Carnations, and when put in Pots, are pretty Ornaments for Court-yards, or Balconies.

Tulip — It would be in vain to endeavour to enumerate the various Sorts of this Flower; for what are valued by ſome, are by others rejected and deem'd of little Worth: However it may not be improper to point out the Characteriſticks of a good Tulip, which ſhould have a ſtrong tall Stem; the Flower ſhould conſiſt of ſix Leaves, three within, and three without, the former of which ought to be larger than

the latter; the Bottom of the Leaves ſhould be proportion'd to the Tops, and the upper Part ſhould be rounded off inſtead of terminating in a Point: Theſe Leaves, when open'd, ſhould ſtand erect, neither turning inward, nor bending out; the Flower ſhould be of a middling Size, with ſmall but regular Stripes riſing quite from the Bottom of the Flower; and the Chives ſhould be yellow, but of a browniſh Caſt. This Sort of Flower is univerſally allow'd by Judges to be good. As to the Management of a Tulip, a great many Perſons pretend to much more Knowledge than is real, eſpecially in regard to breaking the Breeders. Thoſe who would cultivate this Flower from Seed, will find it moſt expedient to gather their Seed from the Breeders, as theſe will produce the ſtrongeſt and beſt Plants. The Beginning or Middle of September is the proper Time for ſowing, when ſhallow Pans, or Boxes, ſhould be provided, with Holes thro' the Bottom, to let out the Wet; theſe being fill'd with light ſandy Earth as even as poſſible, and the Seeds plac'd at a regular Diſtance, ſift over them a little of the ſame Earth, about the Thickneſs of half an Inch; let theſe Pans, or Boxes, receive the Benefit of the Morning Sun till October, and then remove them where they will have the Sun upon them all Day, and be ſhelter'd from the North Winds for the Winter Seaſon; in the Spring let them be again remov'd to the Morning Sun; and, if the Seaſon is dry, refreſh them occaſionally with a little Water, till the Tops begin to decay; after this, give them no more Water, but remove them into the Shade for the Summer, where they will be free from the Drip of Trees. The firſt Appearance of theſe Plants are ſomewhat like the Onion, with bending Heads, and the Leaves ſeldom expand much the firſt Year, as they ſeldom appear

till

till the latter End of March, and decay again about the Beginning of June. Keep the Boxes clear from Weeds and Moſs, and put a little fine Earth over them occaſionally, to preſerve the Roots, giving them the Benefit of the Sun in Winter, as before. In the Spring following plant the Bulbs out into a Bed of light ſandy Earth, with Tiles under it to prevent their ſhooting downward: Plant them about two Inches deep, and in October cover the Beds over with a little more freſh Earth, to preſerve the Roots; covering the Bed with Mats to ſave it from the Froſt while the Roots are young and tender. Let the Bulbs remain in theſe Beds for two Years, keeping them clear from Weeds, and refreſhing them with Water occaſionally; and at Spring and Autumn ſift on a little freſh Earth. When the Bulbs are large enough to blow, plant them out into freſh Beds to ſee what Flowers they will produce, which cannot be judged of till they have flower'd two or three Years. Tulip Roots ſhould be taken up every Year as ſoon as the Leaves are decay'd, and being carefully dry'd and preſerv'd from the Vermin, may be planted again at about the Diſtance of ten Inches ſquare, the latter End of September, or ſooner. Take Care that the Wet do not lay upon the Roots in Winter, for that is very deſtructive.

Violet— This Plant is found wild in many Places, and the ſingle Sort is that which affords ſo fine an Odour; but as the other Sorts are beautiful to the Eye, they are frequently diverſify'd in Borders of Gardens. The Violet is an Annual, but requires no further Care than to plant a few Roots, and keep them clear of Weeds; for they ſow themſelves plentifully.

Artichokes— THE Red Artichoke is at preſent the only Kind that is cultivated about London, where this Plant has been always better managed than by Country Gardeners, in the following Manner: In the latter End of February, or the Beginning of March, according to the Seaſon, tranſplant the Suckers or Slips from the old Roots into rich Ground, and earth them very cloſe; theſe young Plants will produce large fair Fruit the Autumn following. About this Time of the Year it will be proper to dreſs up the old Stocks alſo; from which the Earth ſhould be carefully removed as low as any Suckers are produc'd, and all of them well clear'd away; after this, put a Quantity of very rich Earth to each Root. When you gather your Artichokes, cut them down cloſe to the Ground, and in October or November cover them over with Earth to ſecure them from the Froſt, and they will need no other Care till the Spring. Some Perſons cover them up with Horſe Dung, which is very detrimental, as it draws and weakens the Root.

Jeruſalem Artichoke— This is a Species of the Sunflower, and is an American Plant, but as the Roots are valued by many, being ſomewhat like Potatoes, it is frequently planted in the Kitchen Garden, in ſome waſte Parts; where, being once introduc'd, 'tis difficult to get quit of again, and needs no Trouble.

Aſſarum, or *Aſſarabacca* — The Phyſical Uſes of this Plant are found in Page 66; to which Place having referred the Reader, I ſhall inform him that it is to be found wild in ſome Parts of England in wet ſhady Places, and is encreaſed by parting the Roots in Autumn, and planting in wet Ground.

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The Leaves are round, thick, and almoſt of the Colour of the Ivy Tree.

Aſparagus — About the Middle of February ſow your Seeds on a Bed of good Earth, tread it gently into the Ground, and rake it ſmooth. When they appear, take Care to keep the Bed clear from Weeds, and in the Beginning of the following Winter ſpread ſome rotten Dung about half an Inch thick over the Bed, to preſerve it from the Froſt. About the April following your Plants will be fit to remove; when you muſt prepare a Piece of Ground in Trenches of about half a Foot deep, and a Foot diſtant from each other; lay your Roots in theſe Trenches about ten Inches a-part, and cover them with the Earth, making the Bed level. Keep your Beds clear from Weeds in the Summer, cut down the Haulm in Autumn, and lighten the Earth with a Fork in the Spring; and the third Seaſon after planting, you may begin cutting your Aſparagus for Uſe. A Bed of Aſparagus thus managed will bear cutting for ten or twelve Years, throwing a little rotten Dung over the Bed annually, or at fartheſt every other Winter.

Baulm — This is to be met with in moſt Gardens, in the Cultivation of which it is neceſſary to keep the Bed clear of Weeds, and at Spring or Autumn, once in two Years, take up the Roots, and ſeparate them, to prevent their being too thick. If the Seaſon prove dry, it will be neceſſary to refreſh them with Water, when newly planted, till they have ſtruck Root.

Beans — Are rais'd from planting the Seed; the Sorts which beſt endure cold is the Portugal, or Spaniſh, which may be planted about Michaelmas; and for Crops to ſucceed theſe, they are planted in October, and ſo on as the Weather permits: If the Soil

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is dry and warm, the Windſor, or broad Spaniſh, may be planted from Chriſtmas till March, according to the Weather; and many Perſons, to have them early, plant them on gentle Hot-beds, with Hoops and Mats over them, and tranſplant them out in Rows when the Mildneſs of the Seaſon will allow. They do beſt in good light Earth while Colds continue, but afterwards any Ground will do.

Brocoli — Is a fine Species of the Cabbage; the Time for ſowing them is May, in rich, moiſt Ground, from whence they muſt be tranſplanted at the Diſtance of about three Inches: And in the Beginning of Auguſt let them be planted out into Beds well ſhelter'd from Cold, at leaſt two Feet aſunder, and they will be fit to cut from December till March.

Cabbage — The Management of Cabbages is ſo eaſy as to require little Inſtruction; they are raiſed from Seeds in the ſame Manner as Brocoli, and ought to be planted three Feet aſunder. There are various Kinds, which are adapted to different Seaſons of the Year, and ſucceed each other.

Carrots — Should be ſown in January, if the Weather is mild, in a warm ſandy Soil, dug very deep; after ſowing, tread the Bed all over, and then rake it ſmooth; and when they appear, take Care to thin them ſufficiently with the Hoe. They thrive beſt near Pales or Hedges where it is warm.

Colliflowers — Are produc'd from Seed: If you wou'd have them ſucceed each other, begin ſowing about the End of July, and for later Crops omit about a Week between each. An old Melon or Cucumber Bed is very proper to ſow them upon, which muſt be made level, and cover'd with light freſh Earth, and after you have ſew'd your Seeds, ſtrew over them a little more freſh Earth; ſhade them from the Sun, if very hot, and give them gentle

Waterings

Waterings as you ſee they require Refreſhment. In about a Month's Time your Plants will be fit to remove, which you may do into a Bed of the ſame Nature of that they were firſt ſow'd in, and ſet them about the Diſtance of three Inches by four aſunder: Here they may continue till about the Middle of October, when they ſhould be removed to the Place where they are to remain all the Winter, which ought to be in Frames, or on a Border with a warm Aſpect. They will be ready for the Table in May, and will continue June and July.

Cucumbers — Are in the early Seaſon ſown on Hot-beds, and afterwards, when the Weather is warm, they will do in the natural Ground; theſe are the Sort made uſe of for pickling. In order to have them early, make a Hot-bed at Chriſtmas; cover it about four Inches with fine Mould, put on your Frame and Glaſſes, and as ſoon as you find it warm, ſow your Seeds; and you may continue to raiſe them in this Manner till the Beginning of April.

Endive — Should be ſow'd at Midſummer, and ſo on, at about three Weeks Diſtance from each other, till Michaelmas, in order to have a Succeſſion for the Winter. As ſoon as it has four or five Leaves, plant it out at the Diſtance of about ſix Inches ſquare, from whence, in a Month's Time, plant it in Drills, at the Diſtance of a Foot, and the Plants at about ſix Inches. When it is grown up, tie the Tops with Baſs-matting to blanch it, and as ſoon as 'tis white, let it be us'd immediately. This is a warm, fine Winter Sallad, and not ſo much knownas it deſerves.

Garden Creſſes — Are alſo Winter Sallading, and ſhould be ſown on warm Borders for the Spring, and in Winter on Hot-beds; when you have cut it, water the Bed, and it will grow again, and bear cutting a conſiderable Time.

Horſe-

Horſe-Radiſh — In the Spring, when you uſe Horſe-Radiſh, plant the Heads of the Sticks in a wet deep Soil, free from Roots or Rubbiſh; keep them clear from Weeds, and no other Trouble is requir'd.

Kidney-Beans — To have a Succeſſion of them, they ſhould be ſown at different Times; the firſt in March or April; then again in May and June; this laſt Crop will continue till the Froſt takes them. For the early Seaſon, put them on warm Borders, and under Walls; and ſome raiſe them in Hot-beds. When they are in Flower, give them Water frequently, and they will bear much better. Sow them in ſhallow Drills, and cover them lightly with Earth.

Lettuce — Are propagated from Seed ſown at different Times, as the Weather will permit, from New-year's-day to Michaelmas. Thoſe ſown late are for the Winter, and ſhould be planted out into Beds or Borders ſhelter'd from the Cold, and where they will have the Benefit of the Sun. The Lettuce chiefly in Uſe are the green and white Cos, the brown Dutch, Imperial and Sileſia. All the different Kinds muſt be planted out from the Seed Bed, when they have five Leaves, or ſoon after.

Mint — Is rais'd from Seed ſown on Borders of common Earth, in February or March, which muſt be afterwards tranſplanted into Beds; or by dividing the Roots in Spring or Autumn, and planting in dry Ground: This Method is attended with leaſt Trouble, if you can procure Roots.

Onions — Should be ſown about the Beginning of March in rich dry ſandy Ground, but not too thick, eight Pounds being a ſufficient Quantity for an Acre of Land. In a Month or ſix Weeks, according to the Weather, they will be up high enough to be drawn or thin'd with a ſmall Hoe; at which Time let the Bed be clear'd of Weeds, and the Blades left

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at the Diſtance of about two Inches, and they will need no other Care for a Month, unleſs there ſhould be Occaſion to refreſh them with Water; at the Expiration of the Month, hoe them a ſecond Time, when the Weather is dry, that the Weeds may die as ſoon as they are cut up, and thin the Onions ſo as to leave them at leaſt three Inches a-part: At the Expiration of another Month after this, hoe them a ſecond Time to the Diſtance of ſix Inches a-part, that they may have Room to grow large. If the Weather proves dry, this may be ſufficient, and by having thin'd the Crop, they will be large, and fit to gather by the Middle, or latter End of July. The frequent howing away the Weeds, and keeping the Ground looſe, is of great Service before the Heads begin to be large. The white Spaniſh is the Onion moſt in Eſteem.

Parſley — Should be ſown in February, in a light moiſt Soil, not over thick, which will be a Means of making the Roots much ſtronger, and will produce more Leaves. It is very hardy, and when grown up, will bear cutting very frequently.

Parſneps — May be ſown in a Bed alone, or with Carrots, in a mellow deep Soil, in February or March, and ſhould be hoed out to the Diſtance of eight or nine Inches, in order to let them have Room to grow large, which is eſteem'd the Perfection of this Root; for which Reaſon it is the beſt Way to ſow them in the ſame Bed with Carrots, and as the Carrots come off, they will have ſufficient Room. When the Top begins to decay, they are fit to gather, and before that Time they are ſeldom well taſted, nor are they good in the Spring, after beginning to grow again.

Peas — The firſt Seaſon for ſowing is about the Beginning or Middle of November, under Walls

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with a South Aſpect, well ſhelter'd from the Winds; when they are up, earth them from Time to Time as you ſee Occaſion. The Hot-ſpur, commonly call'd the Nimble Pea, is the moſt proper for this Seaſon, as it beſt endures the Cold; it is alſo preferable to any other for a late Crop to come in after the common Seaſon. Thoſe for the Middle Seaſon, when the Weather is kind, is the Maſtic Hotſpur, he Dwarf and common Marrow-fats, the Nonpariel, and the Reading. Peaſe grow beſt in a light ſandy Earth.

Potatoes — Should be planted in a light deep Soil that is rich, in the latter End of February, if the Seaſon is mild: If it is in a Garden, dig a Trench a Spit deep, and lay in ſome Straw Thatch, or any kind of long Straw Dung; if your Potatoes have many Eyes, they may be cut into ſeveral Parts, taking Care that one or more Eye be left in each; lay in theſe at the Diſtance of eight or nine Inches, and cover them over again with Litter; then throw the Earth upon them. Let your next Trench be at ſuch a Diſtance as to permit you to go between, and earth them after they are grown up. If they are planted in the Field, a deep Furrow will anſwer the Purpoſe of a Trench dug with a Spade, which may be clos'd up again by the Plow; and in this Method leave proper Room between each Ridge, and they may be earth'd by the Plow, and cultivated with very little Trouble.

Radiſhes — Are now us'd for Salading in the Winter Seaſon; are rais'd under Frames in Hot-beds for this Purpoſe, and ſown very thick; thoſe intended for eating otherwiſe, require a good rich Soil, and for an early Crop, muſt be ſown upon warm well-ſhelter'd Borders, in the Middle of October; and, when up, they muſt be hoed or thin'd to the Diſtance of about three

three Inches ſquare. The next Seaſon for ſowing is about the Beginning of the New Year, if the Weather is favourable; theſe muſt alſo be well ſhelter'd. In the Middle of February, and ſo on to the Middle or latter End of March, they will do upon open Ground; and after this Time they are ſubject to what is call'd the Black Fly, which generally deſtroys them entirely. Birds are very troubleſome where Radiſhes are ſown, and, for Want of Care, often deſtroy the whole Crop.

Shallots — Are propagated by ſeparating the Roots, and planting them in a warm Border, at about the Diſtance of four Inches by nine, there to ſtand till they are fit to be taken up, which will be known by the Declining of the Heads. Then take them up, and dry them in the Sun, and houſe them in ſome convenient Place.

Spinach — The prickly narrow-leav'd Spinach is hardy, and will endure the Winter; ſow it in the latter End of July, in an open Spot of Ground, when it is likely to rain, otherwiſe when dry Weather ſucceeds, the Crop is ſeldom regular. When it is up, hoe it in dry Weather, to deſtroy the Weeds and thin the Crop, leaving them about five Inches a-part. As the Weeds grow, about once a Month clear them away, and in October it will be fit for Uſe: When you gather it, crop the largeſt Leaves, and leave thoſe in the Centre to grow bigger; thus you may continue cropping it all the Winter. The other tenderer Sorts ſhould be ſown from the latter End of February to the latter End of March; when this is up, hoe it as the other, and take Care that your Spinach be kept clear of Weeds, which cauſe the Plants to run up weak. This Spring Crop will be fit for uſe in April, as the Winter Plants go off. This Plant requires a good rich Soil.

Thyme

Thyme—The Lemon-thyme, and the Variegated, which has ſtriped Leaves, are the only Sorts propagated in Gardens; the latter has a beautiful Appearance; but the Lemon-thyme is that which is uſed for Seaſoning. Both theſe Sorts are eaſily propagated; their trailing Branches ſtrike out Roots from the Joints that lay upon the Earth, and from one Root, ſoon produce a large Stock. The ſtriped Sort were formerly uſed for Edgings to Borders, and look'd very beautiful; but as they cannot well be kept within Bounds, it is now diſus'd.

Turnips—Have been of great Uſe in the Improvement of dry ſandy Lands, as well as Food for Cattle in Winter; they are grown to great Advantage in barren Lands, from whence they are generally ſweeteſt, and leaſt liable to be ſticky: The Ground ſhould be plough'd in May, and twy-fallow'd in June, and made very fine: The Seed ſhould be ſown very thin the latter End of July; at which Time it cuſtomarily receives the Benefit of ſome refreſhing Showers, without which it is very common to have the whole Crop deſtroy'd by the Fly. The Seed muſt be harrow'd in, and roll'd, and if the firſt Crop is deſtroy'd, ſow it again. When they are up in about five Leaves, hoe them to the Diſtance of ſix Inches, that they may have Room to apple. In Gardens where the Ground is moiſt, they are frequently ſown in April, May, and June; but, if the Weather prove dry, they frequently miſcarry.

F I N I S.